Promoting ownership of learning with authentic assessment

ISD Allen/November Learning Webinar
Cambridge, MA, 2 October 2012

Promoting ownership of learning with authentic assessment

ISD Allen/November Learning Webinar
Cambridge, MA, 2 October 2012

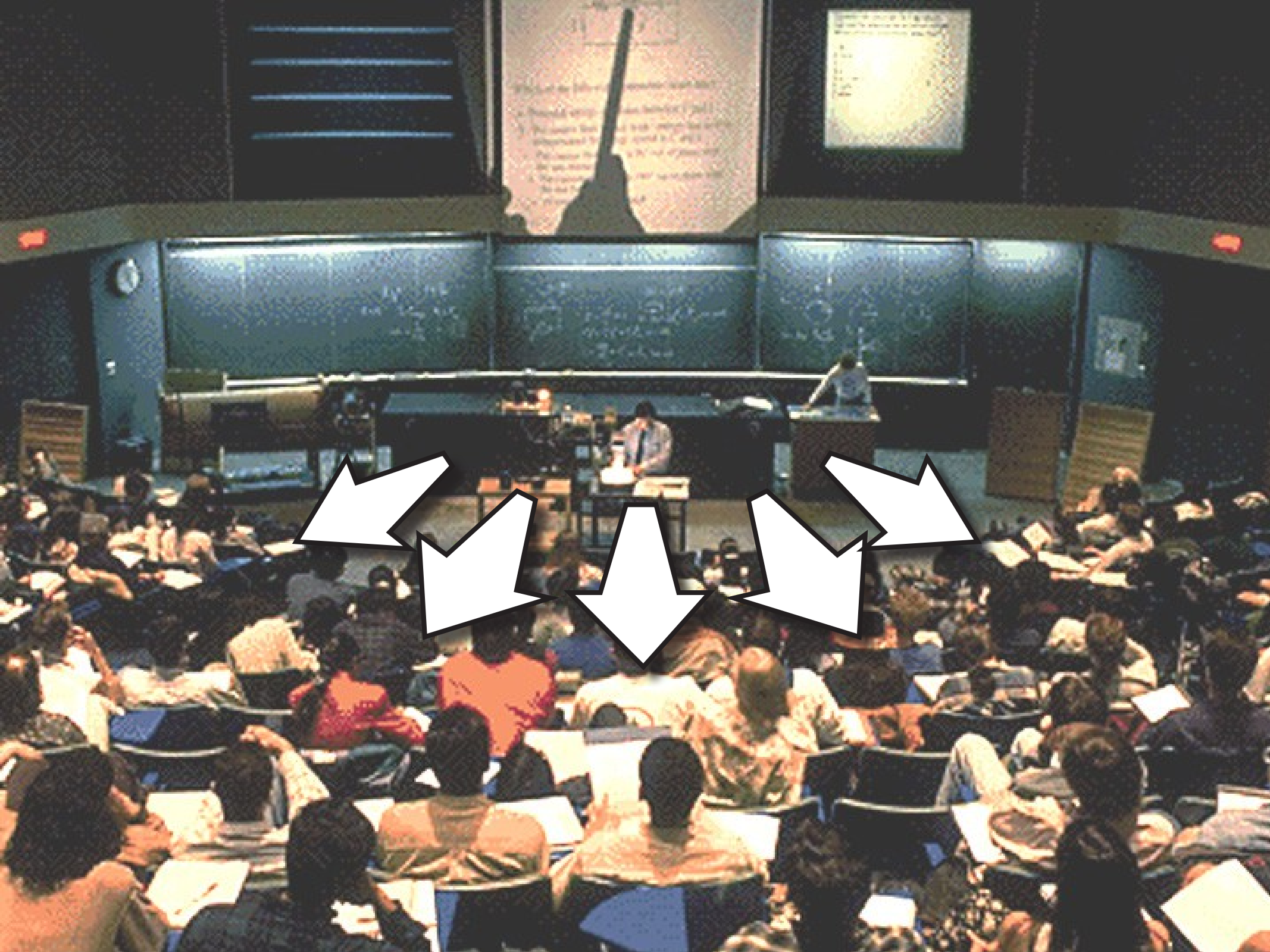
kosten
1. die Kosten (pl.)
krank
1. die Krankheit, —, —en
455
cow
377
magnificen
glo
1. magnifice
2. master
lendid
430
der Kellner, —s, —
1. der Keller, —s, —
428
kennen irreg.
kannte-gekannt
1. kennen-lernen
2. erkennen
3. bekannt
4. der Bekannte (adj. as n.)
das Kind, —(e)s, —er
1. kindisch
2. kindlich
poco rit
ccel.

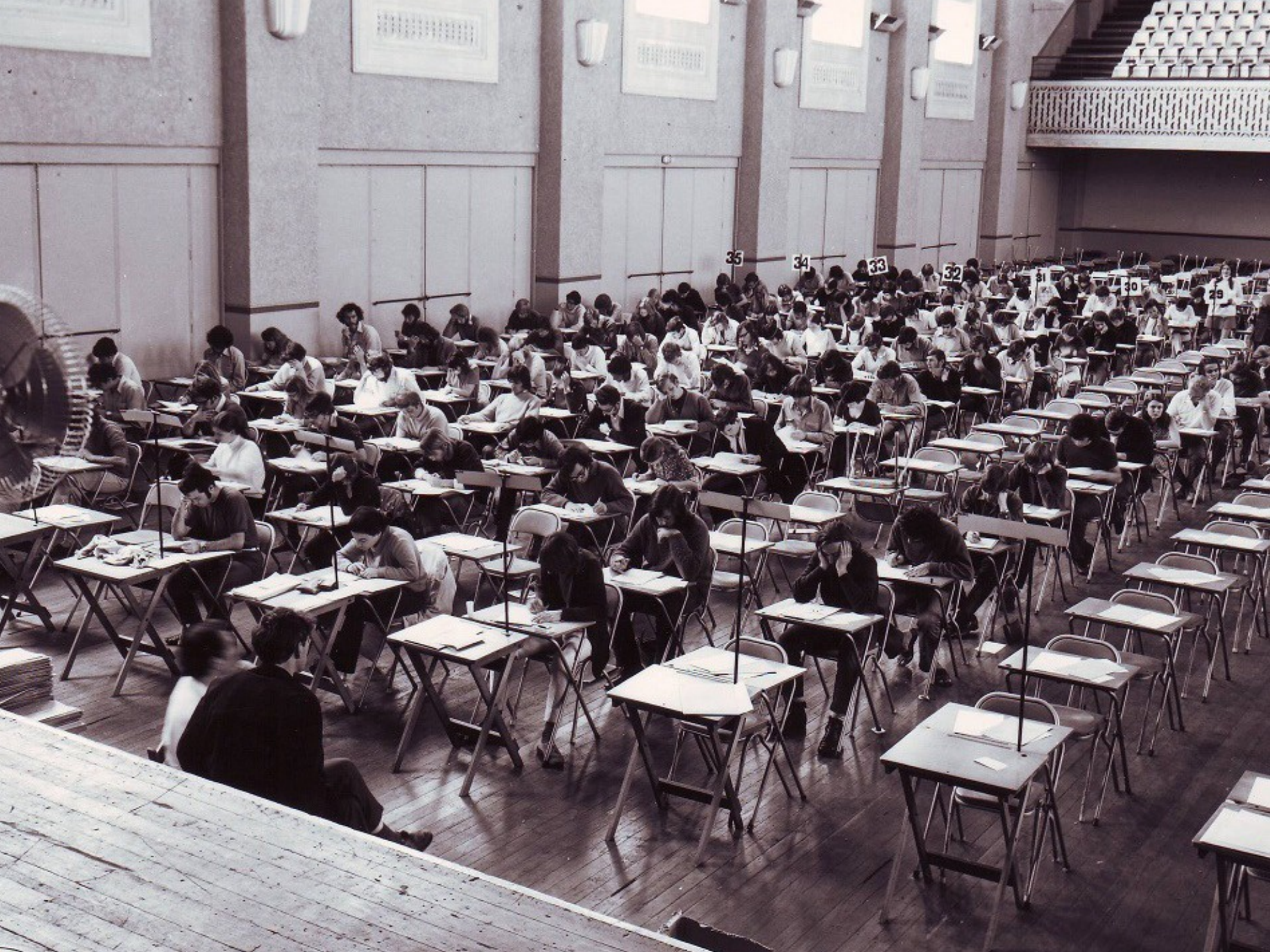
kosten
1. die Kosten (pl.)
2. kostbar
krank
die Krankheit, —, —en
455
377
kennen
kannte-gekannt
1. kennen-lernen
2. erkennen
3. bekannt
4. der Bekannte (adj. as n.)
428
Verizon 3G
4:20 PM
Flashcard
Back
23 of 100
pedantic
adj. ostentatious in one's learning
Search
Popular
Subjects
Grade Levels
Standardized

35% retained after 1 week

we only guarantee
they'll pass the test

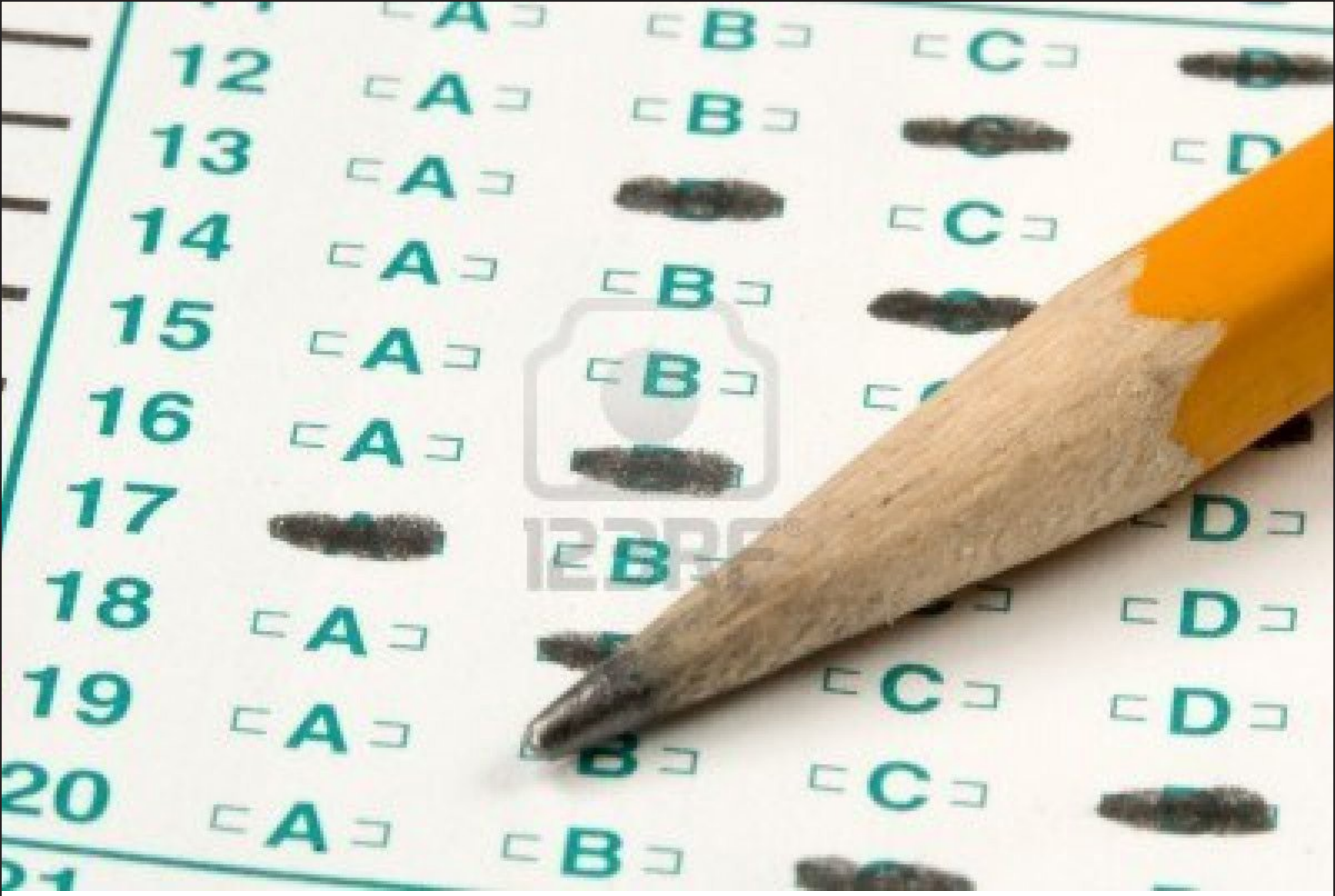
5-minute university




35
34
33
32
31
30
29

assessment focussed on ranking and classifying,

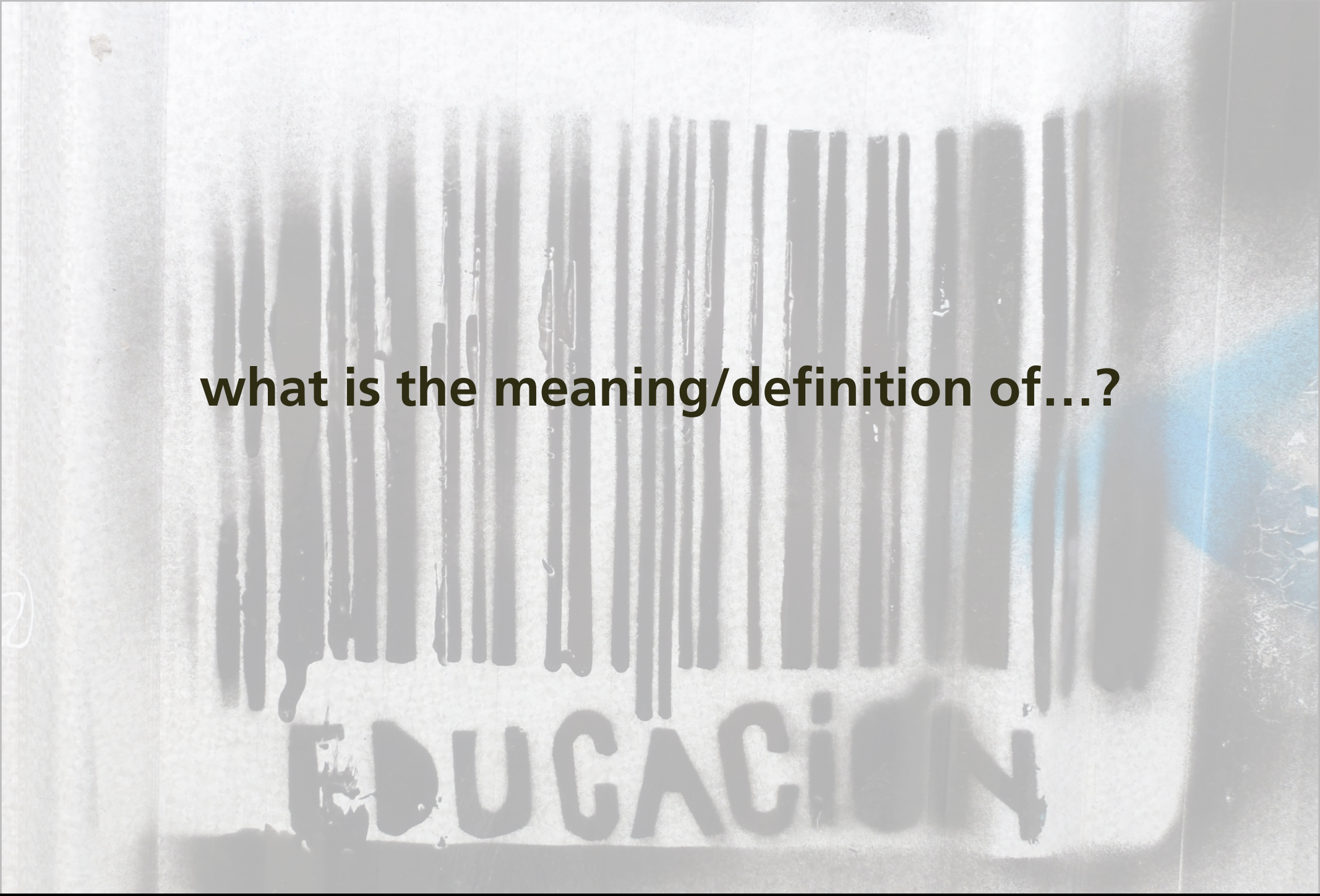
not on developing 21st century skills



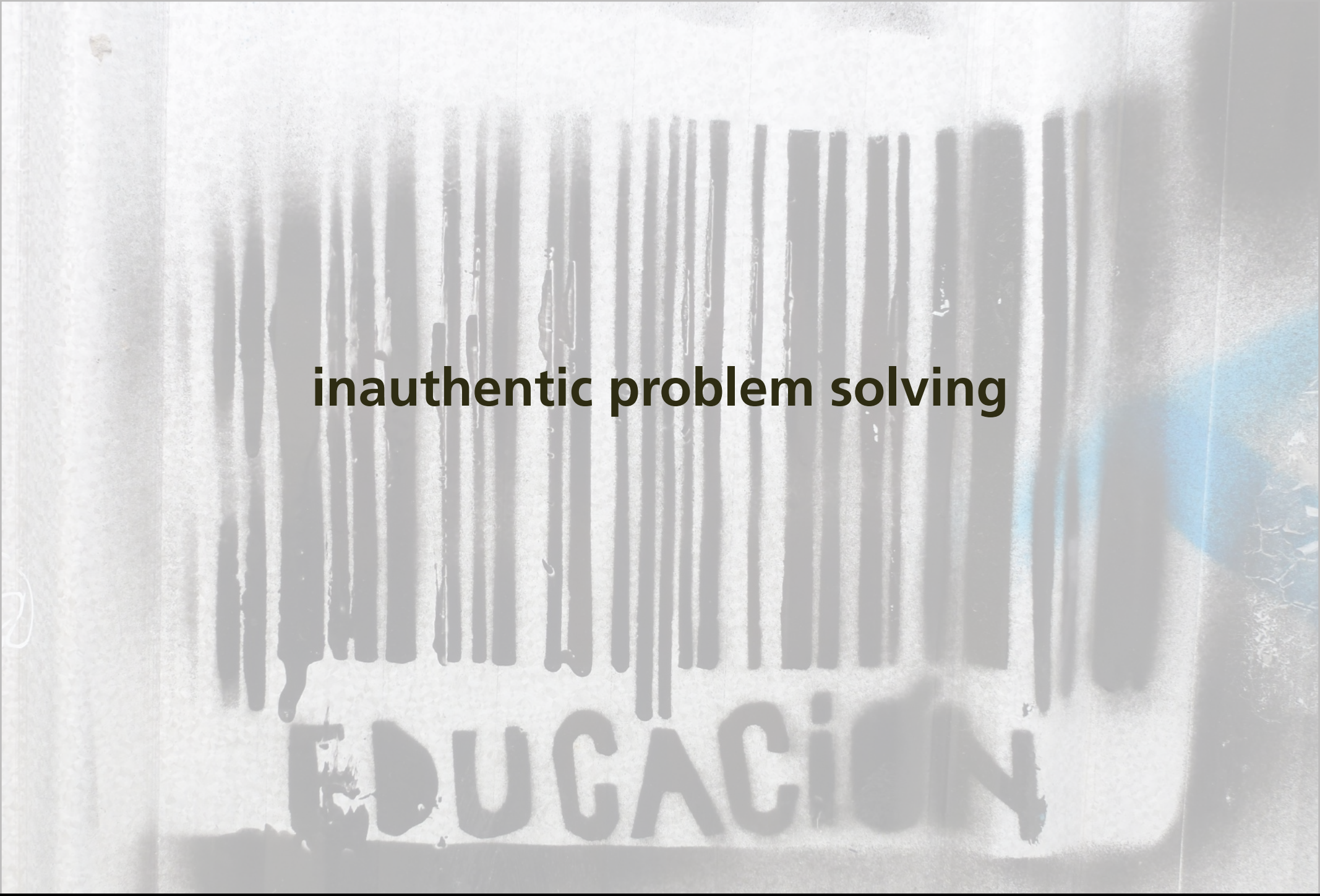
1 what

2 how

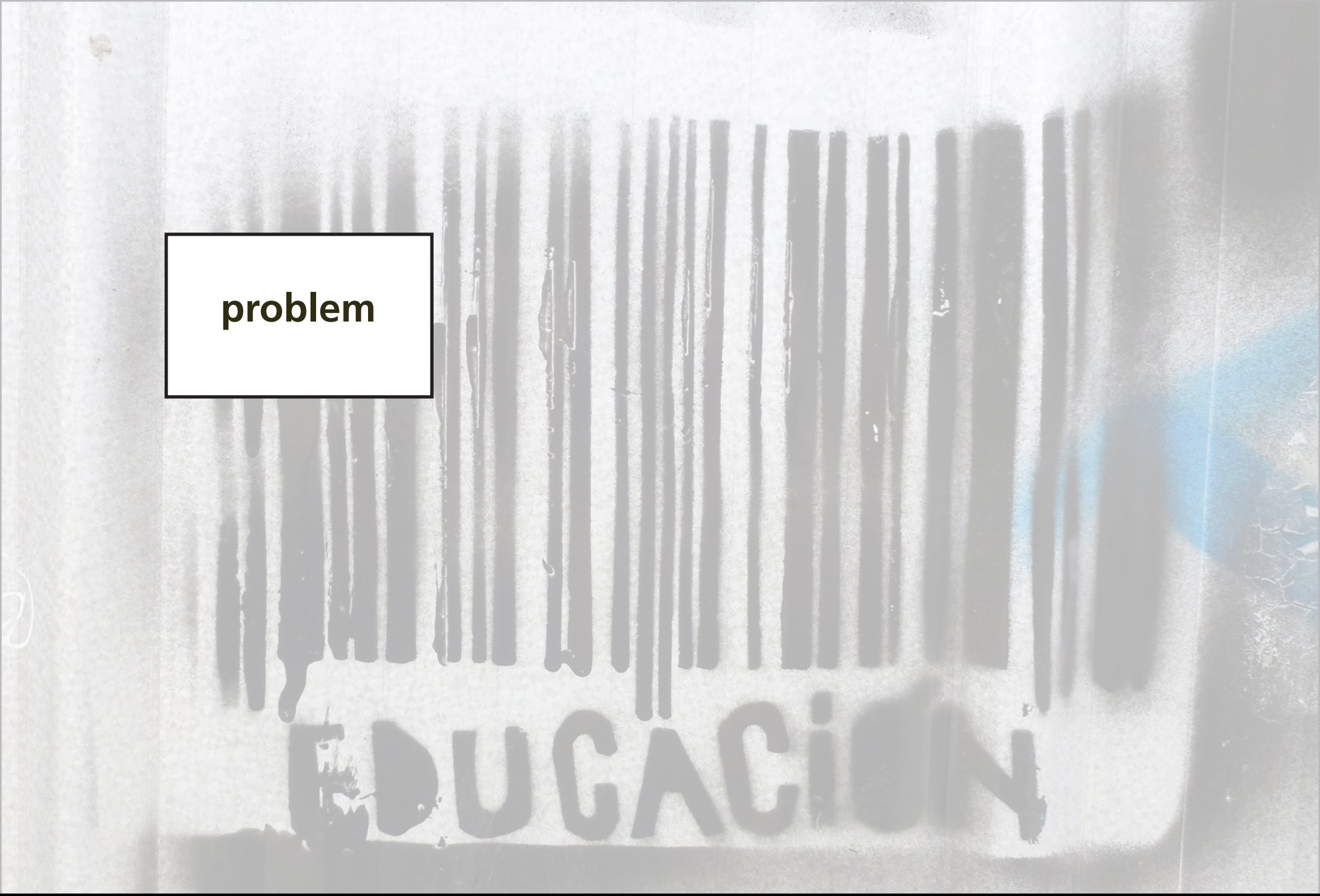
3 when



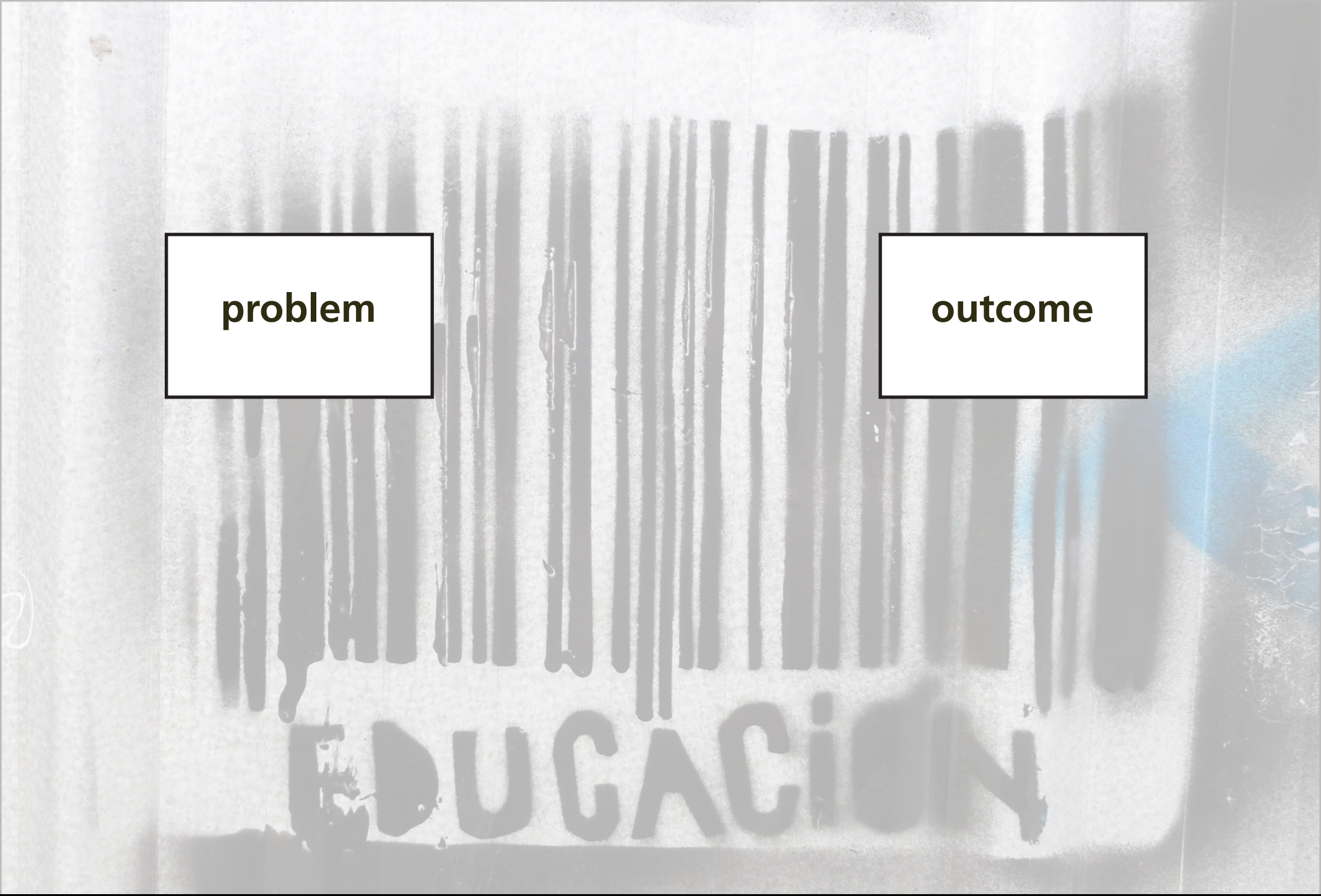
what is the meaning/definition of…?



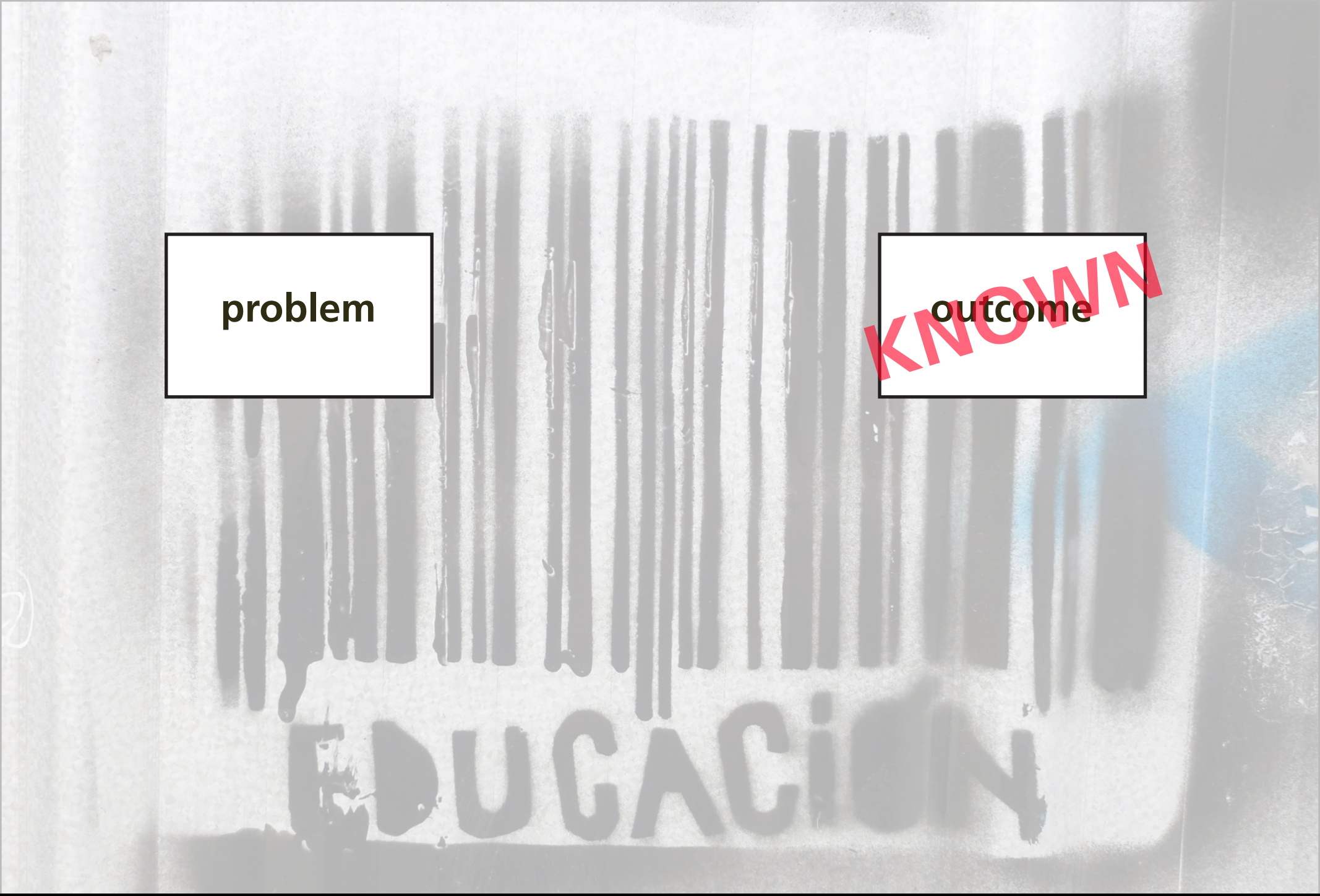
inauthentic problem solving



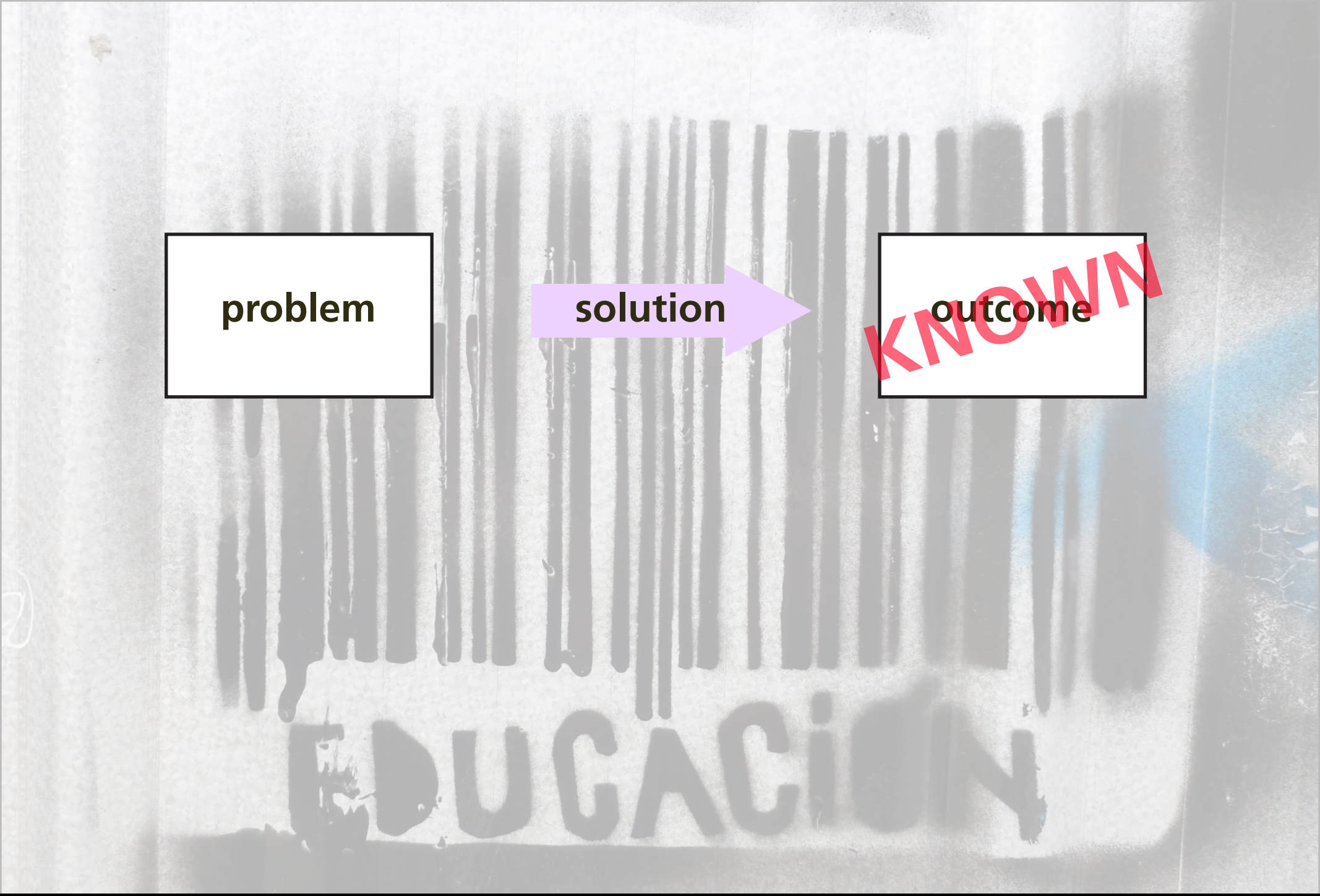
1 what



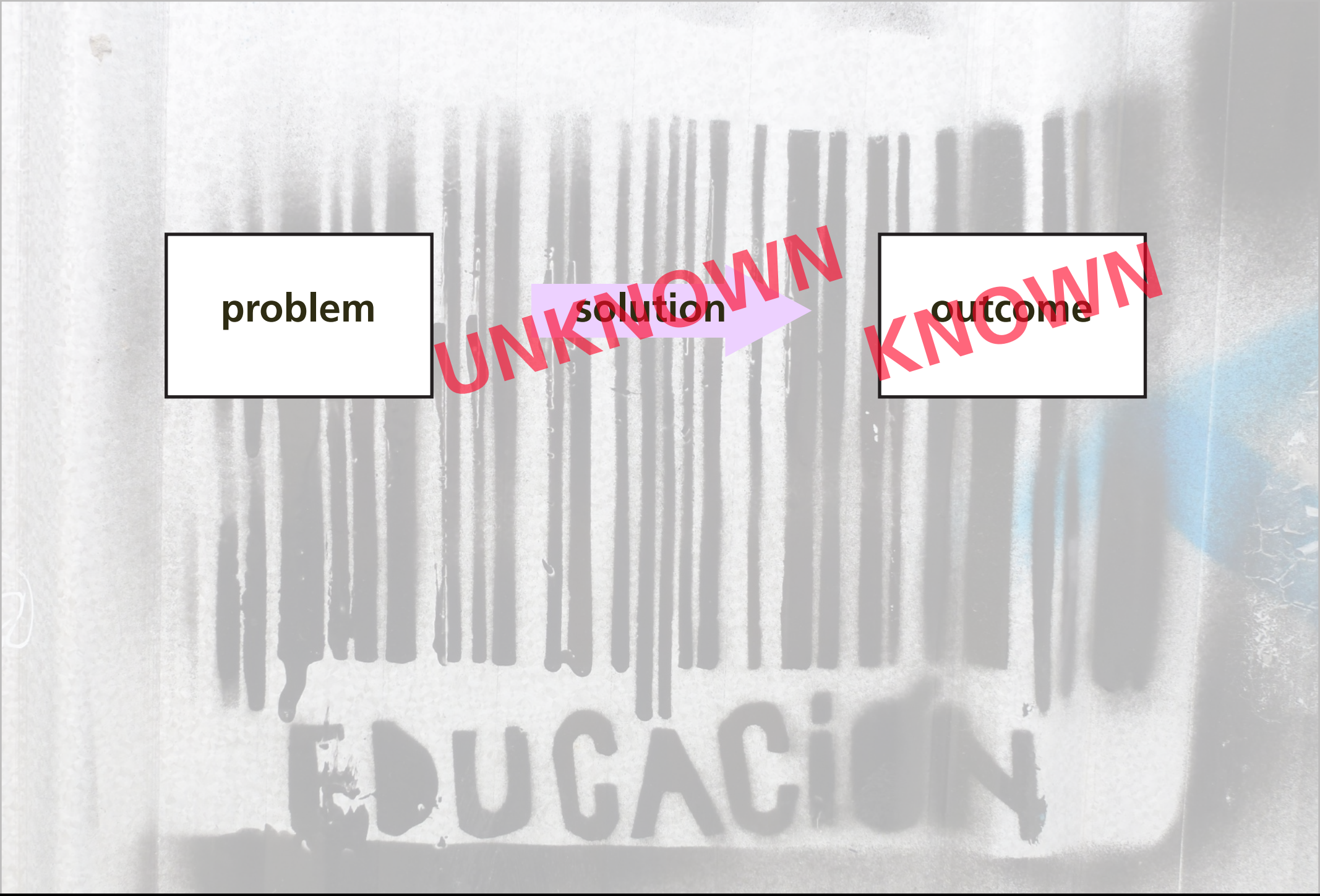
1 what



1 what



1 what



1 what

problem

UNKNOWN

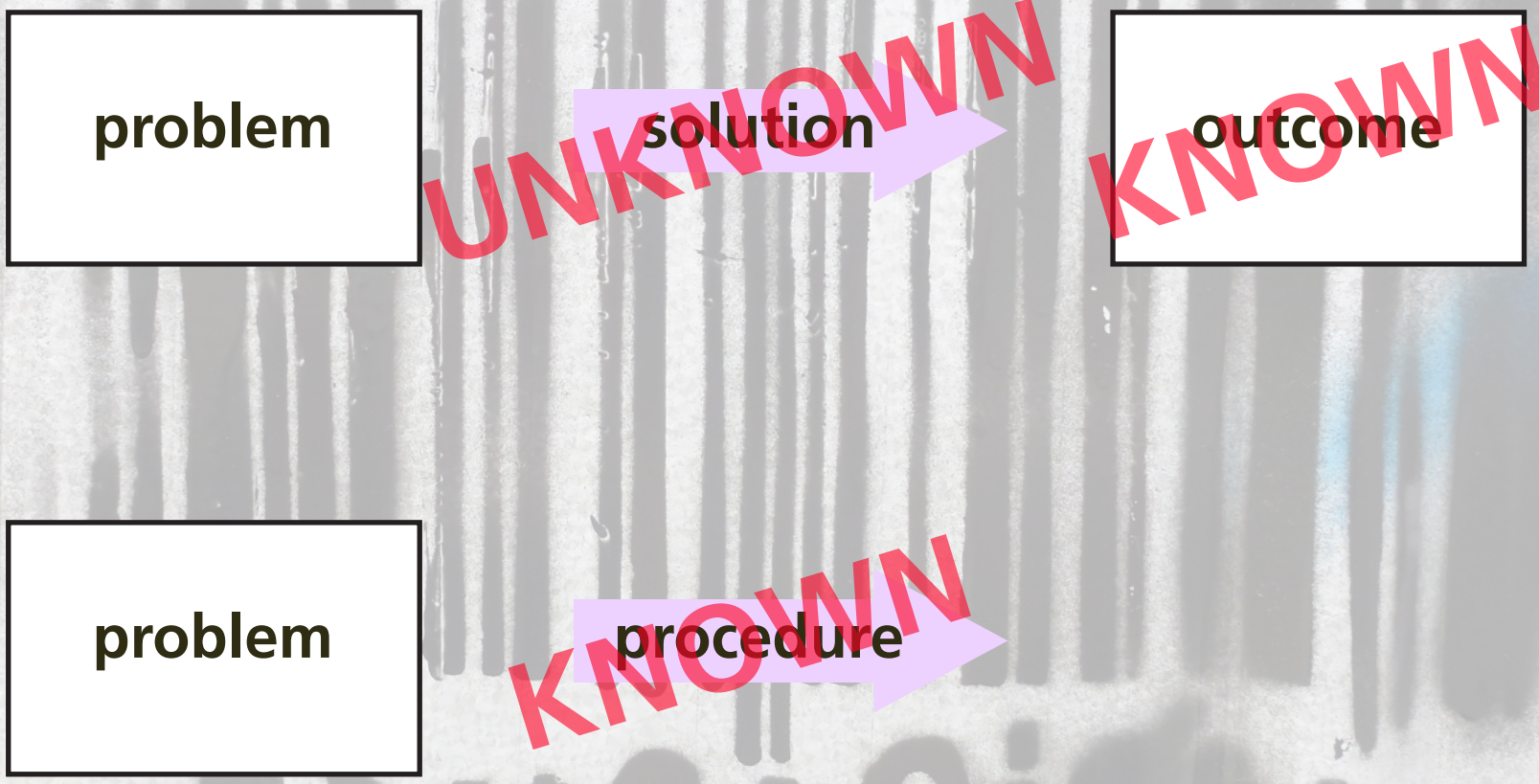
solution

KNOWN

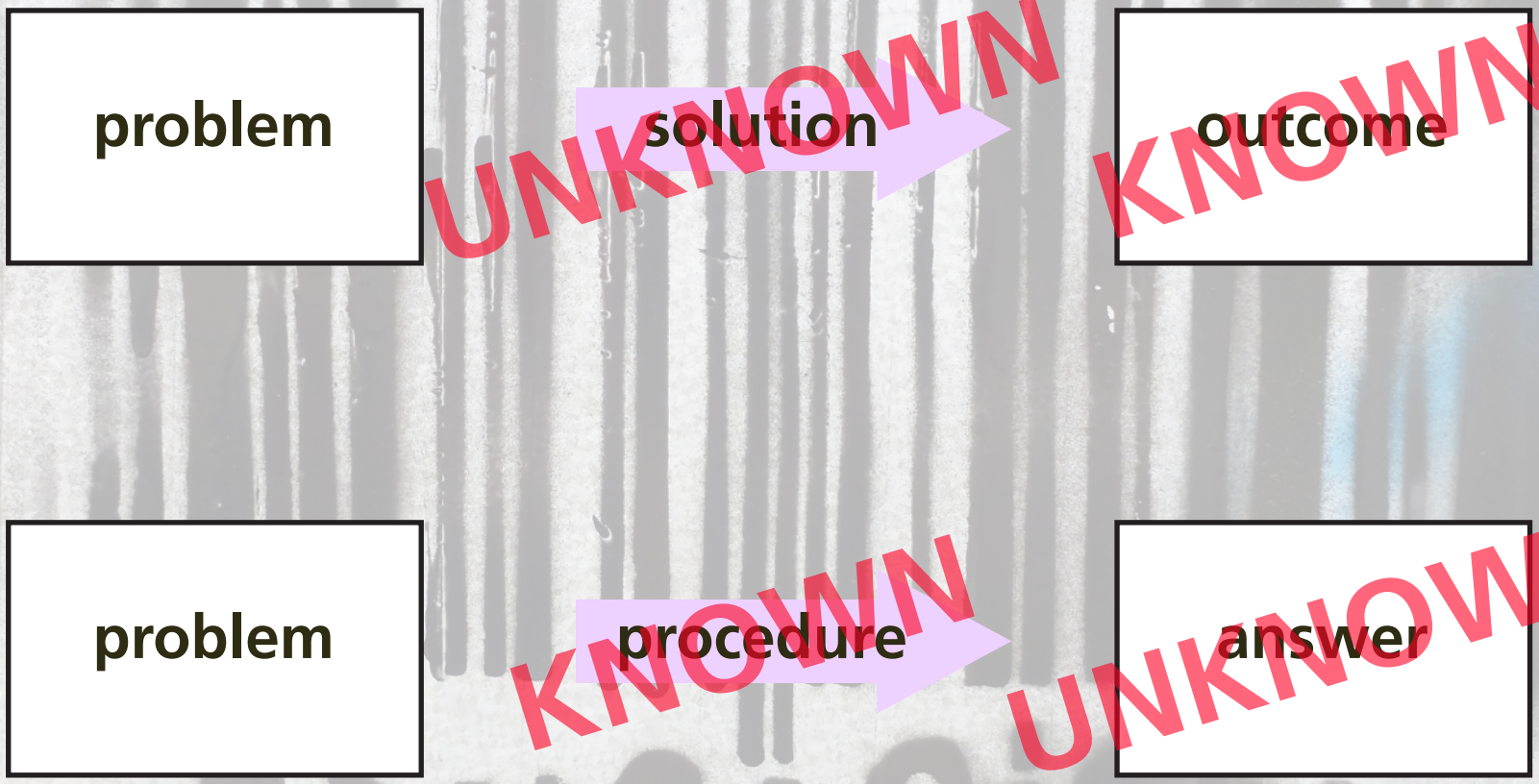
outcome

problem

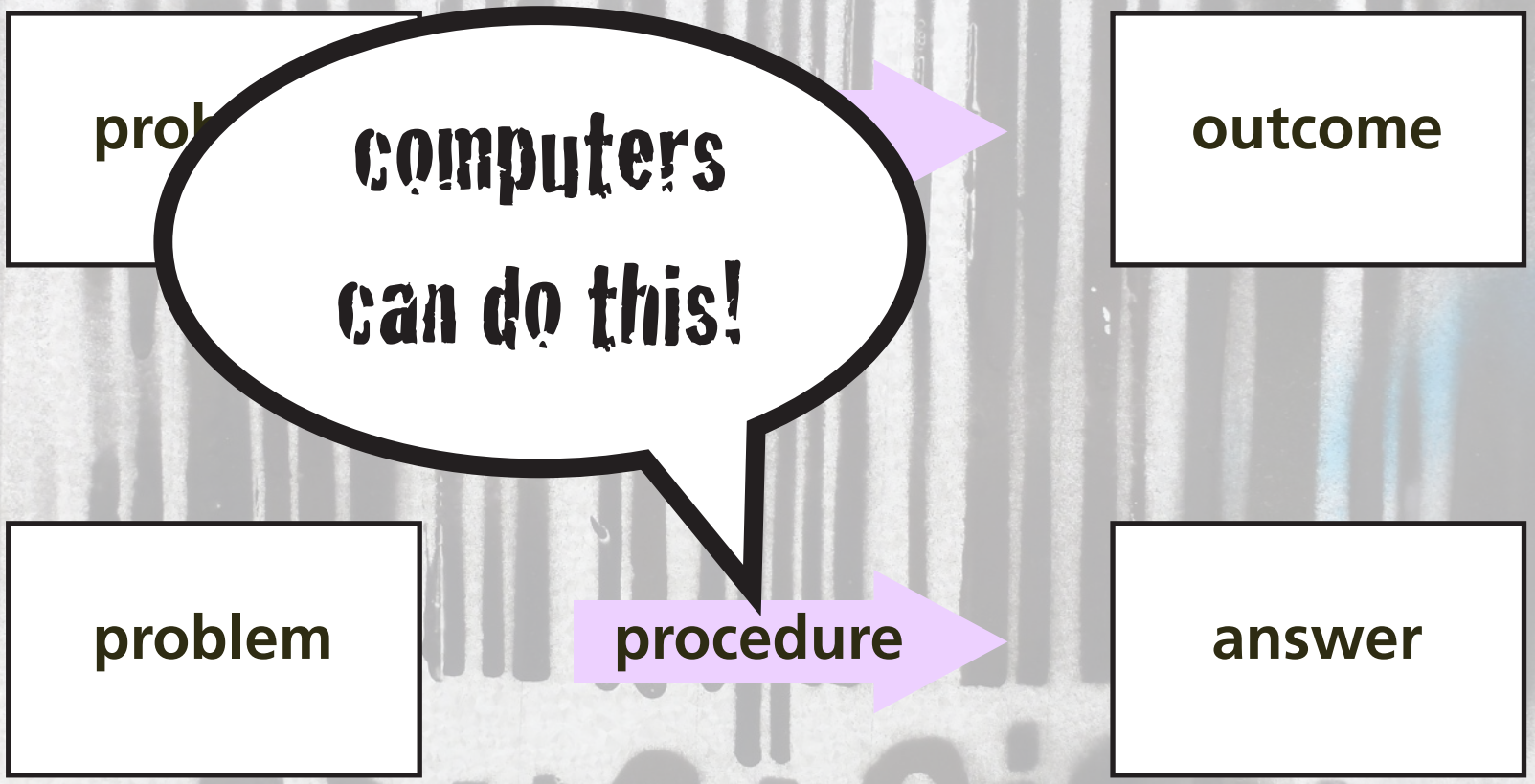
1 what


problem
solution
UNKNOWN
outcome
KNOWN
problem
procedure
KNOWN

1 what

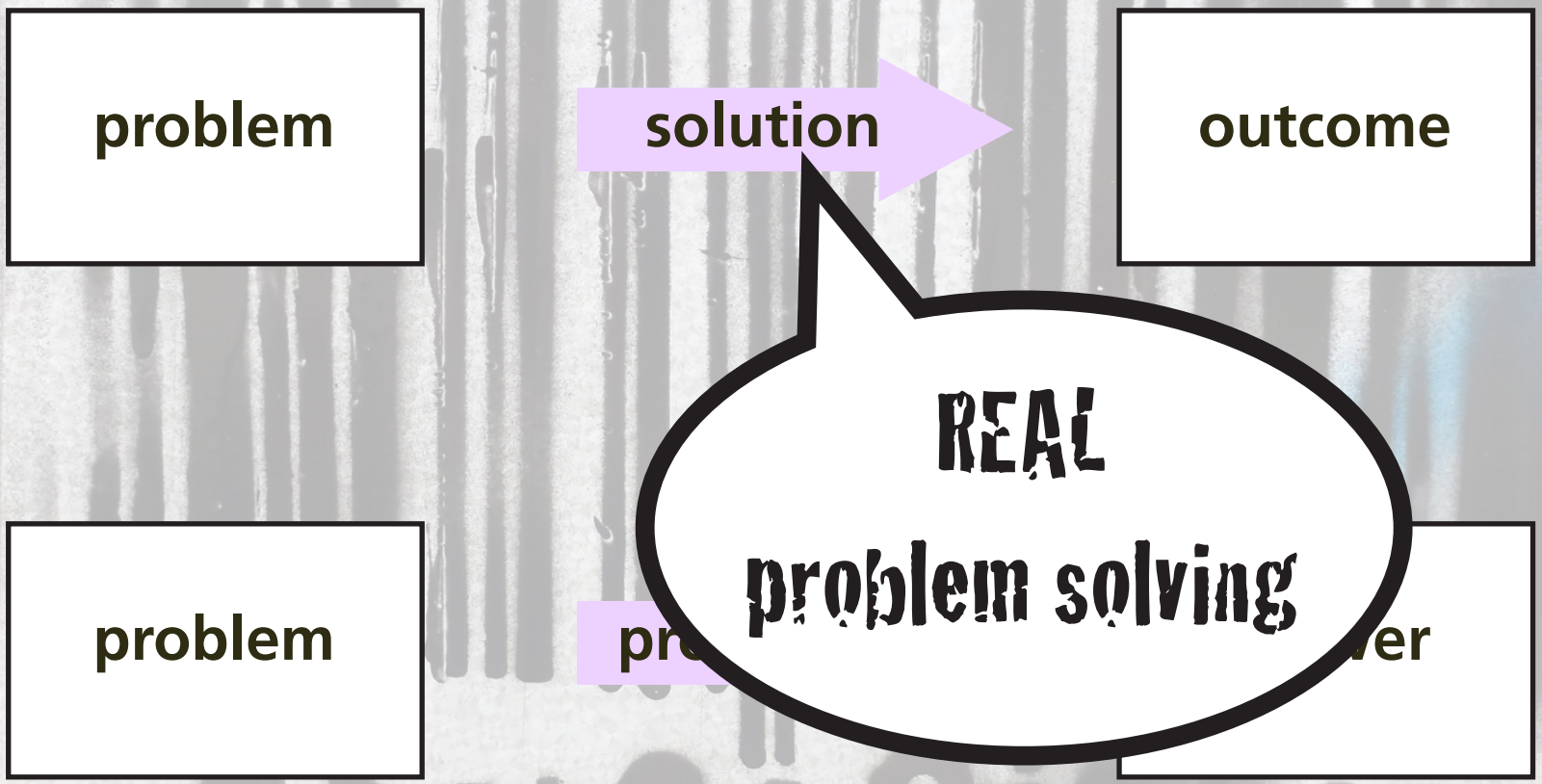

problem
solution
outcome
UNKNOWN
KNOWN
problem
procedure
answer
KNOWN
UNKNOWN

1 what

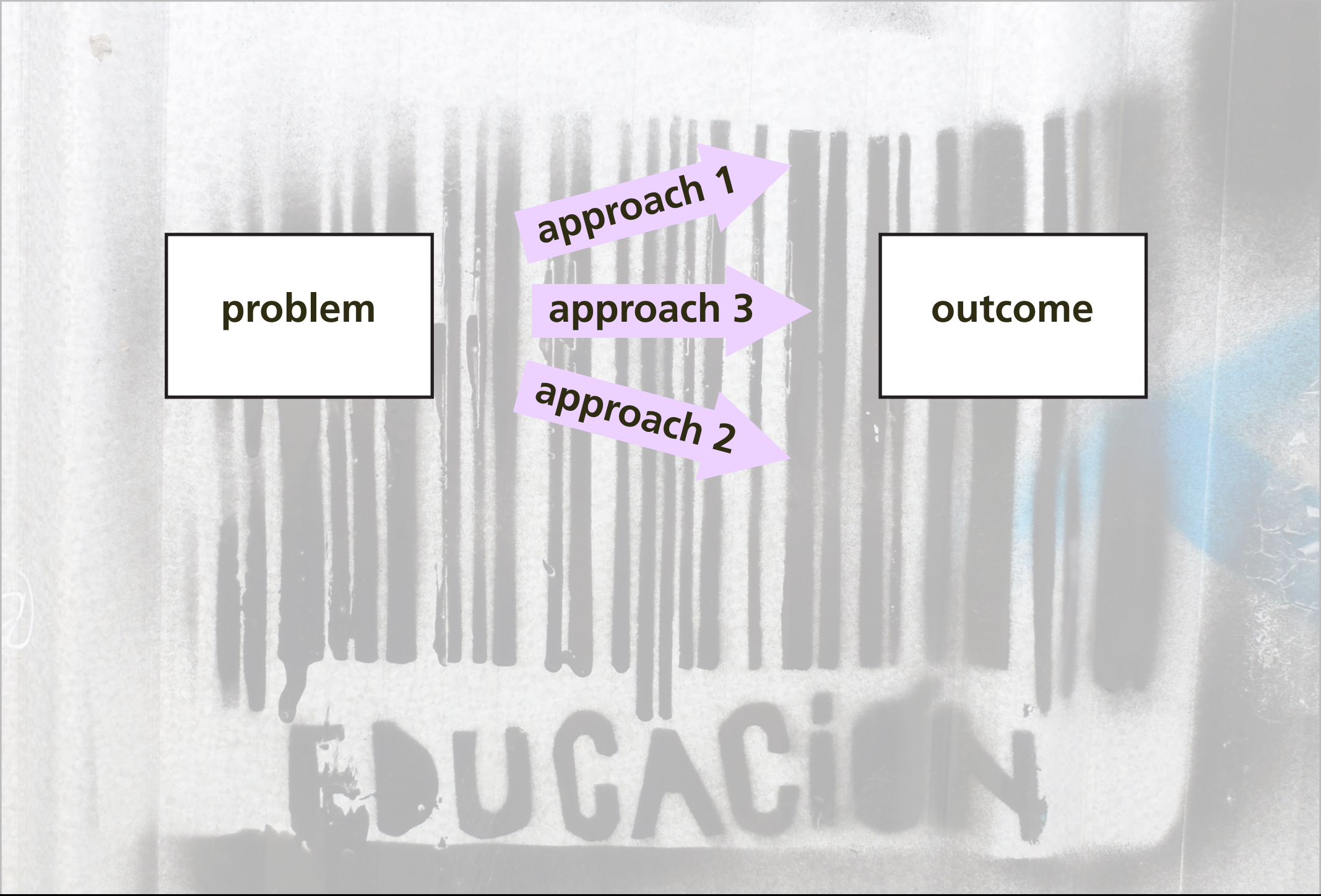

prob
computers
can do this!
outcome
problem
procedure
answer

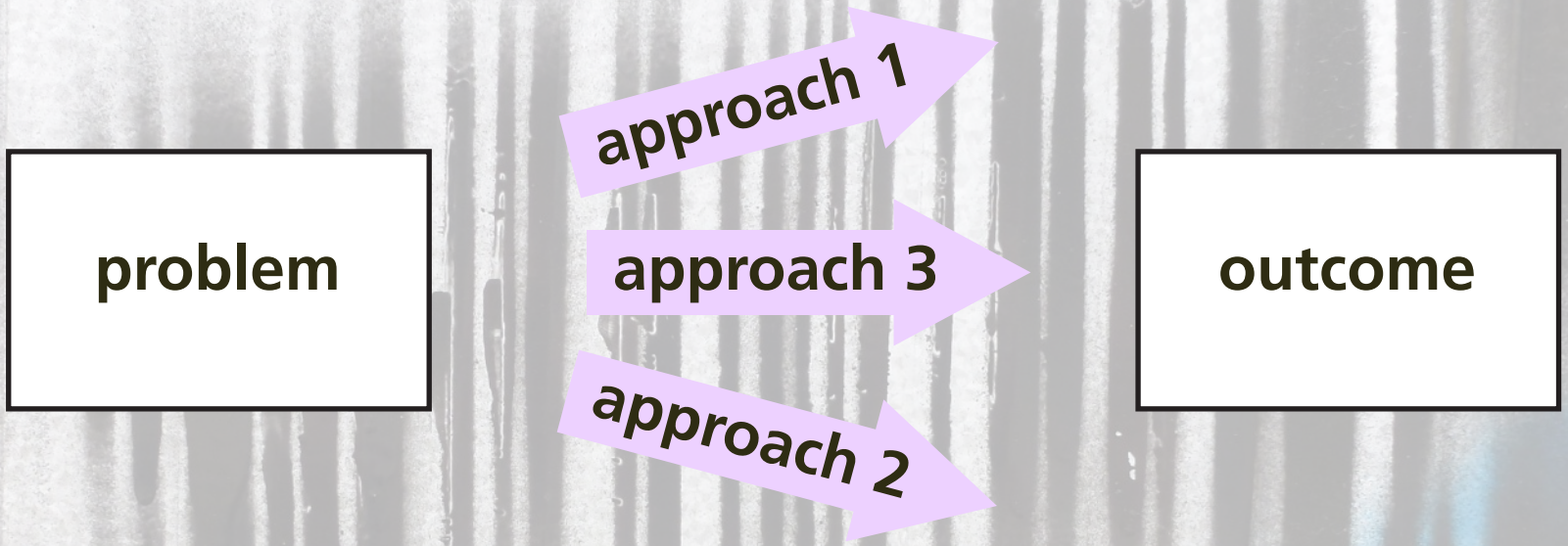
1 what

1 what



1 what

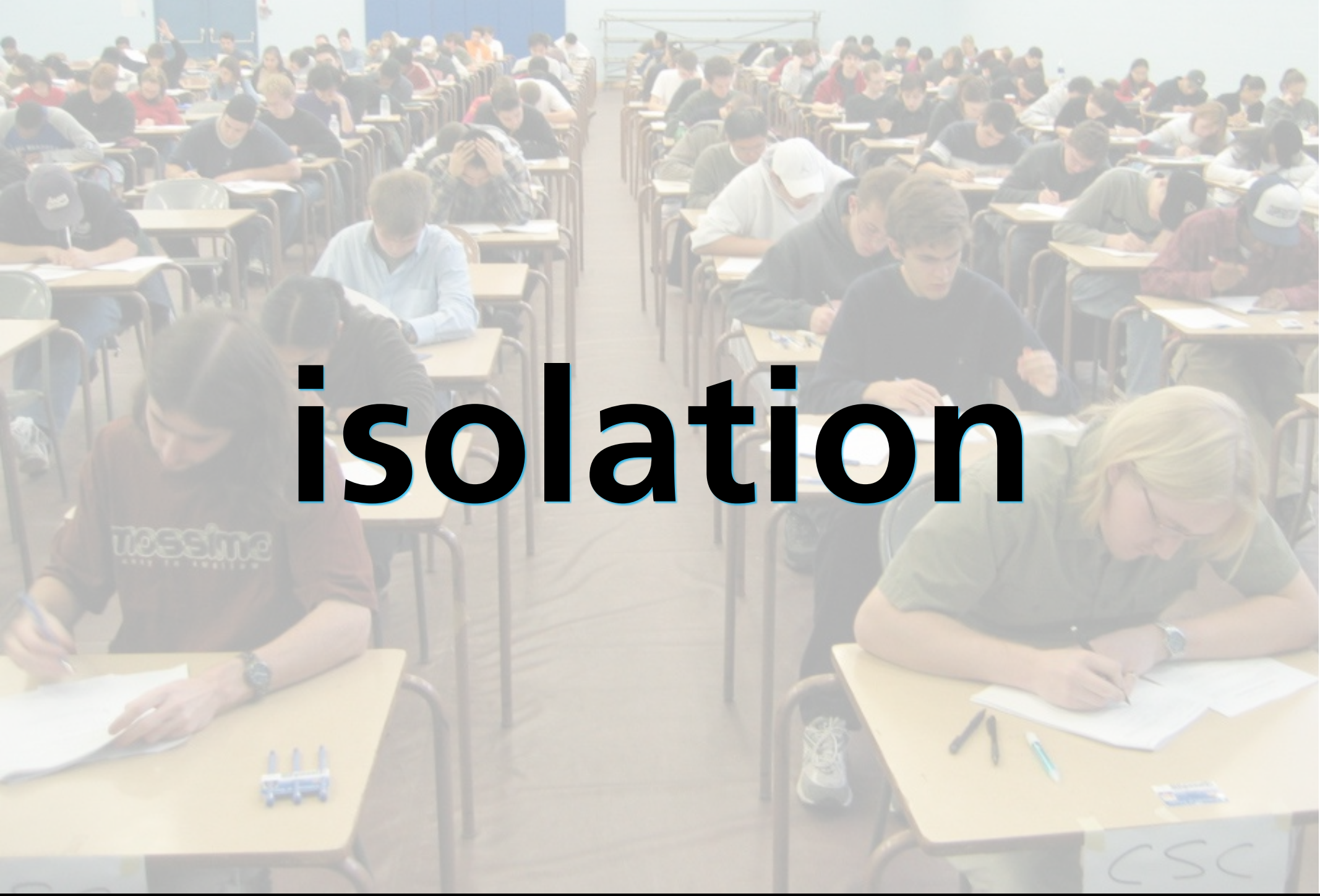

problem
approach 1
approach 3
approach 2
outcome



grading incompatible with real problem solving

1 what

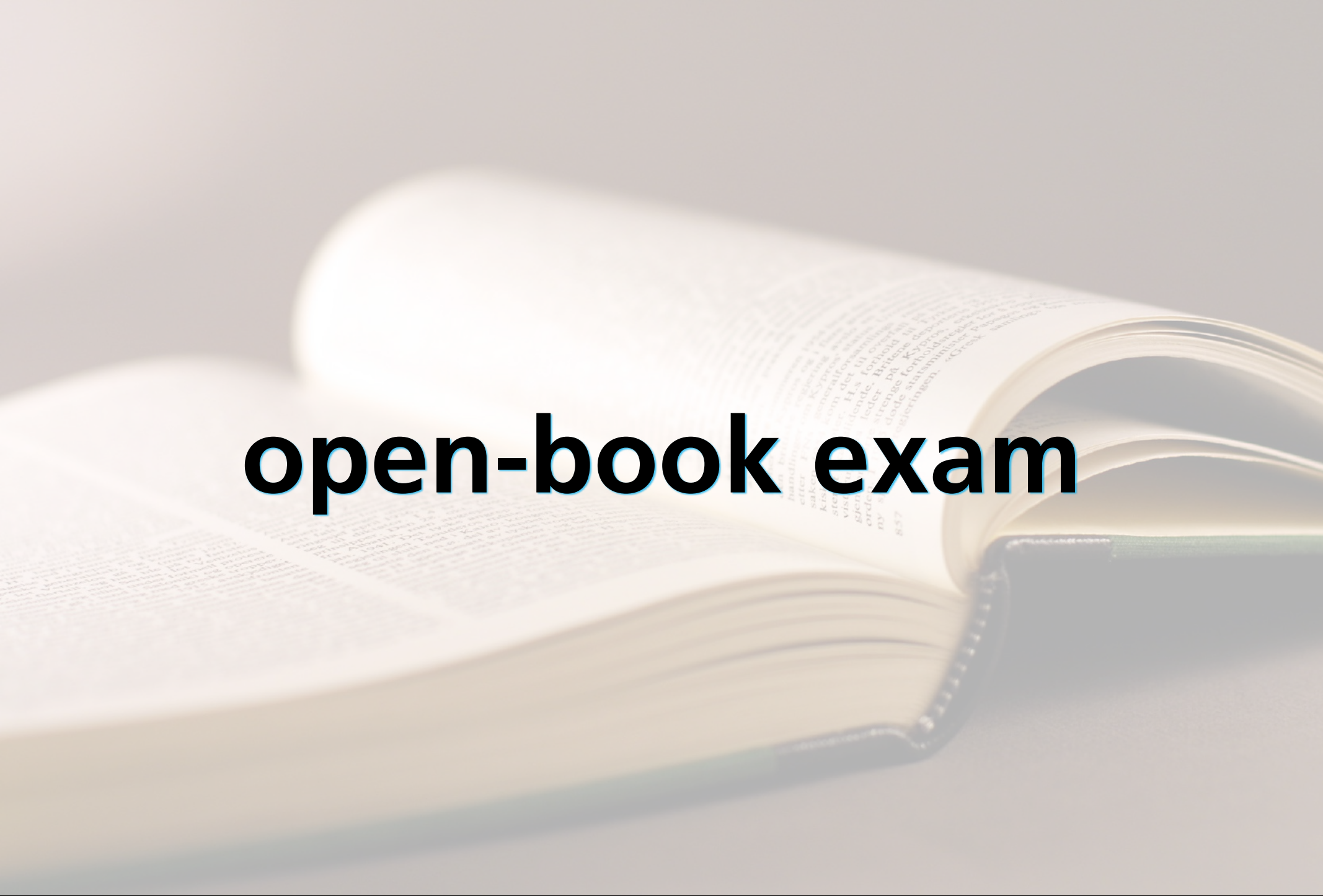
2 how



isolation

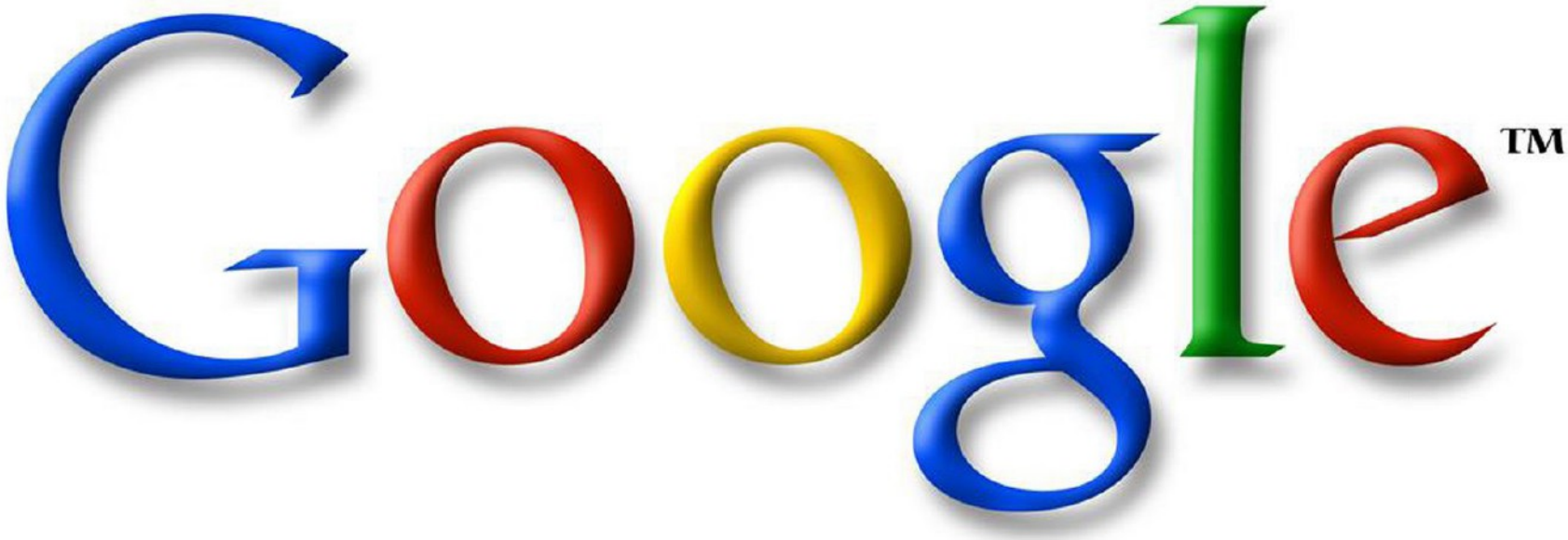
1 what

2 how



1 what

2 how



1 what

2 how

1 what

2 how

(4) We will use spherical coordinates: $0 \le \rho \le 4$, $0 \le \theta \le 2\pi$, $0 \le \varphi \le \pi$. The integral is thus:

$$\int_{\rho=0}^{4}\int_{\theta=0}^{2\pi}\int_{\varphi=0}^{\pi}(\rho\cos\varphi)(\rho\sin\varphi)\,\rho^2\,d\varphi\,d\theta\,d\rho$$

$$= \left\{\int_{\rho=0}^{4}\rho^3\,d\rho\right\}\left\{\int_{\theta=0}^{2\pi}d\theta\right\}\left\{\frac{1}{2}\int_{\varphi=0}^{\pi}\sin(2\varphi)\,d\varphi\right\} = \boxed{0}$$

Since the third integral equals 0.

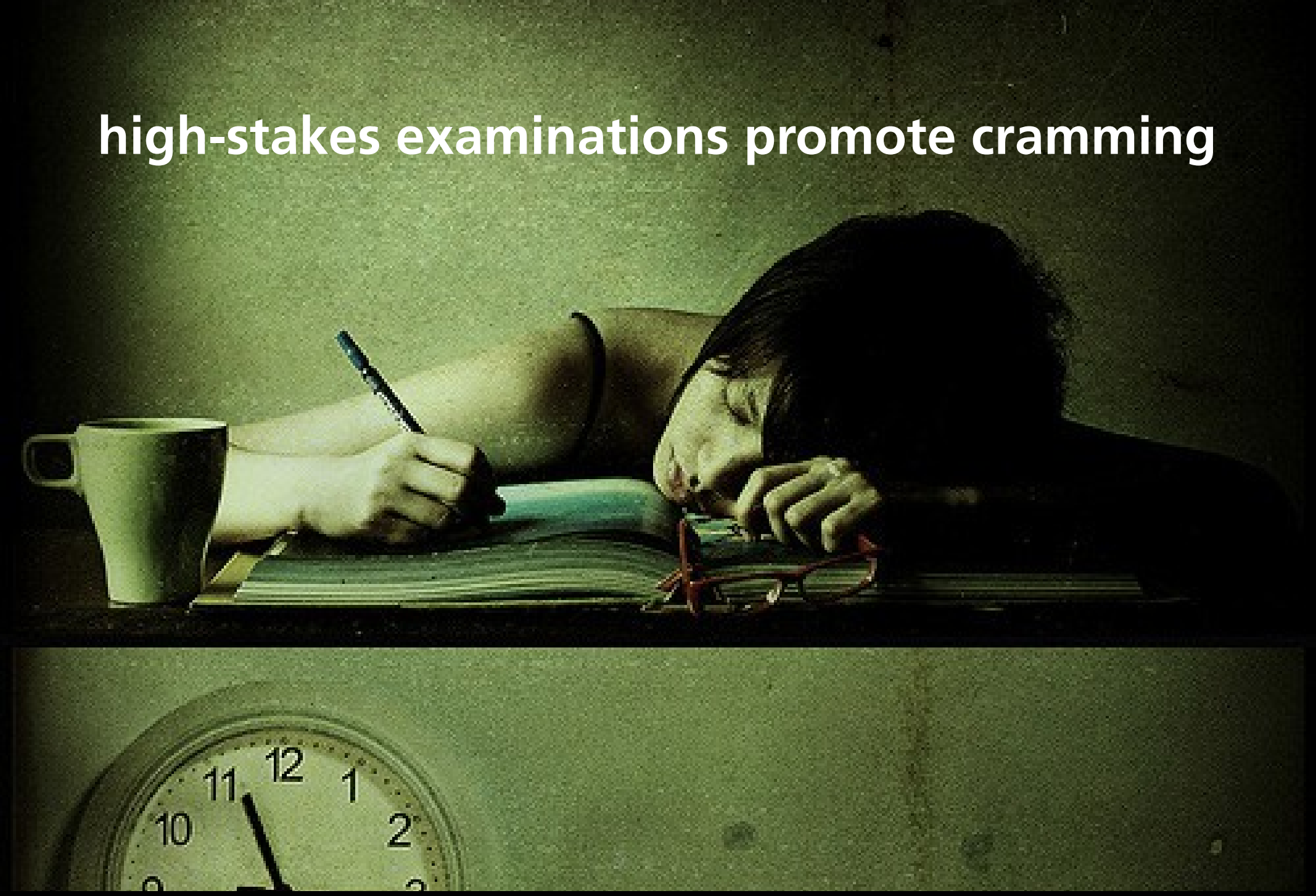
o o o

(5) Direction vectors for the plane are

$$\begin{pmatrix}1\\1\\0\end{pmatrix} \quad \begin{pmatrix}1\\0\\-1\end{pmatrix}$$

Final Exam

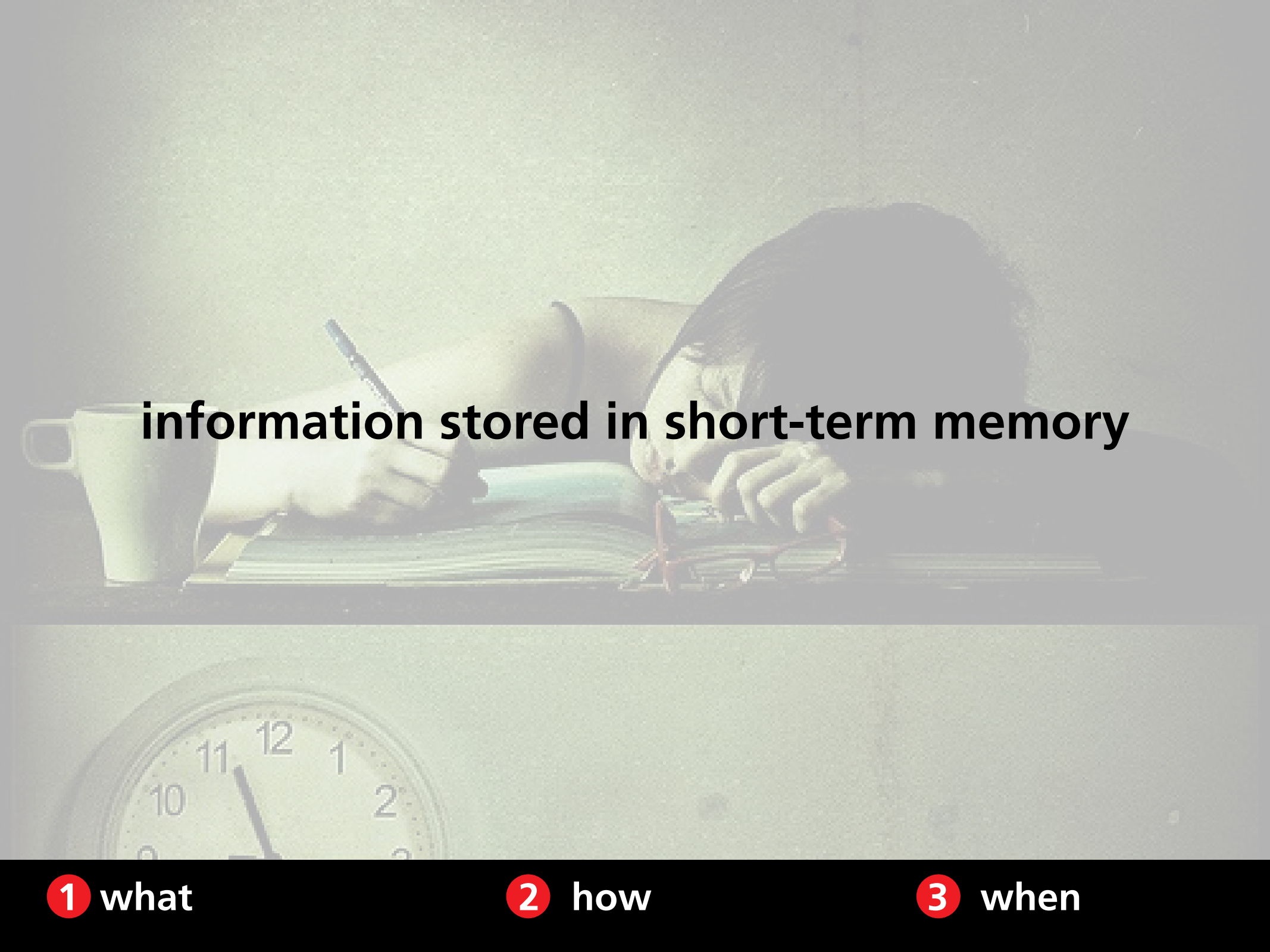
high-stakes examinations promote cramming



1 what

2 how

3 when

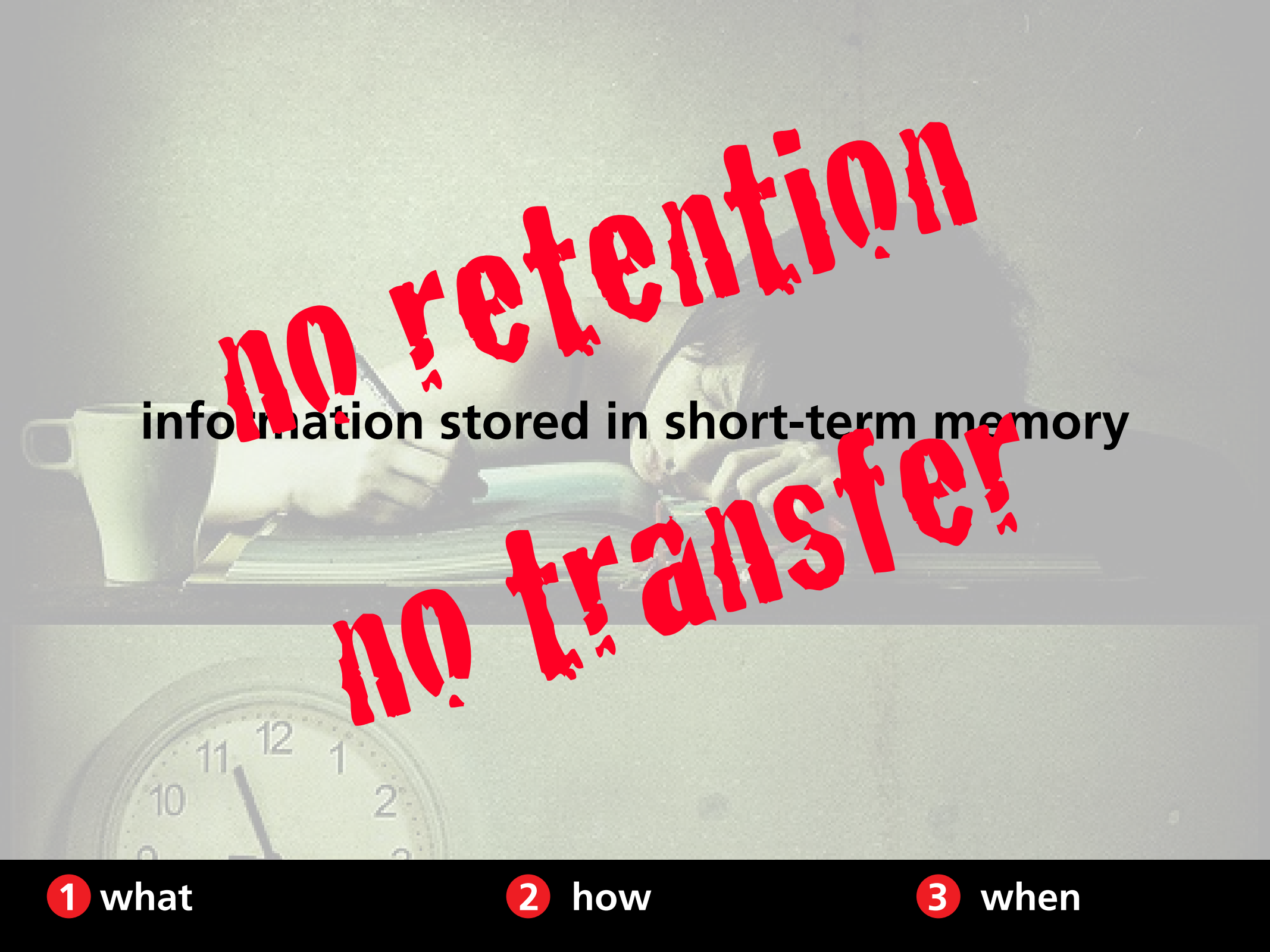


information stored in short-term memory

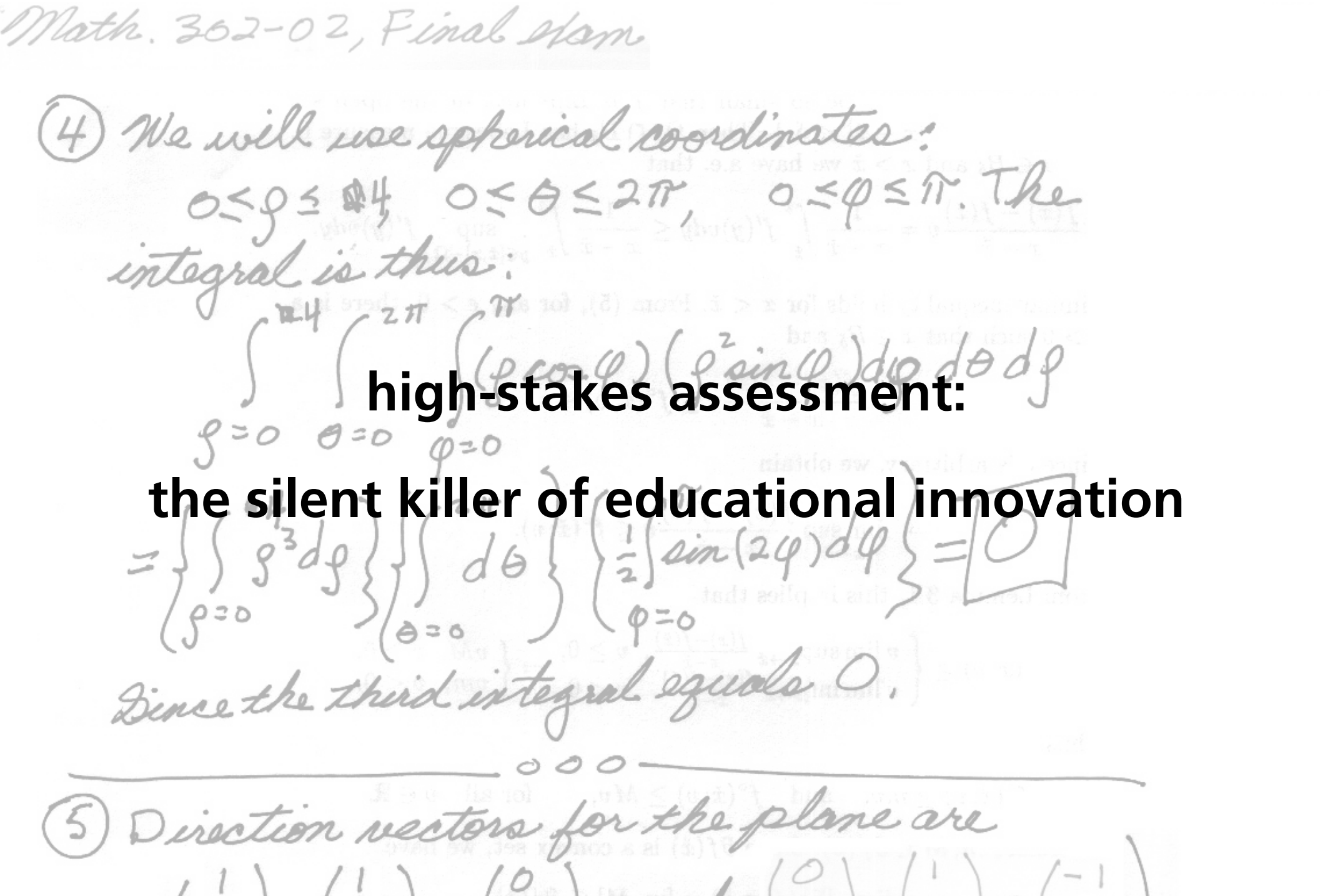
1 what

2 how

3 when



1 what 2 how 3 when



high-stakes assessment:

the silent killer of educational innovation

1 what 2 how 3 when

chemical reaction does one of two things to involved substa

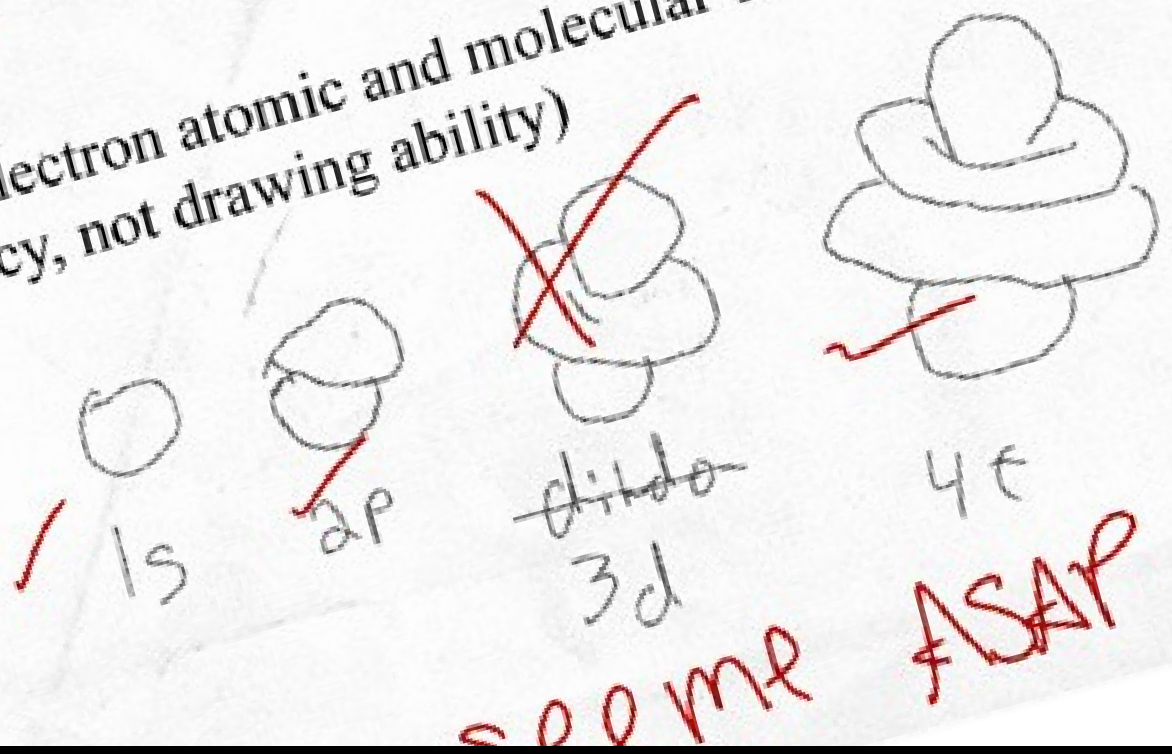
Increases or decreases the energy of the substances involved ... sometimes through the form of heat or light

nick in front of
s wearing a white
Victorias Secret thing.

inappropriate

A CREDIT

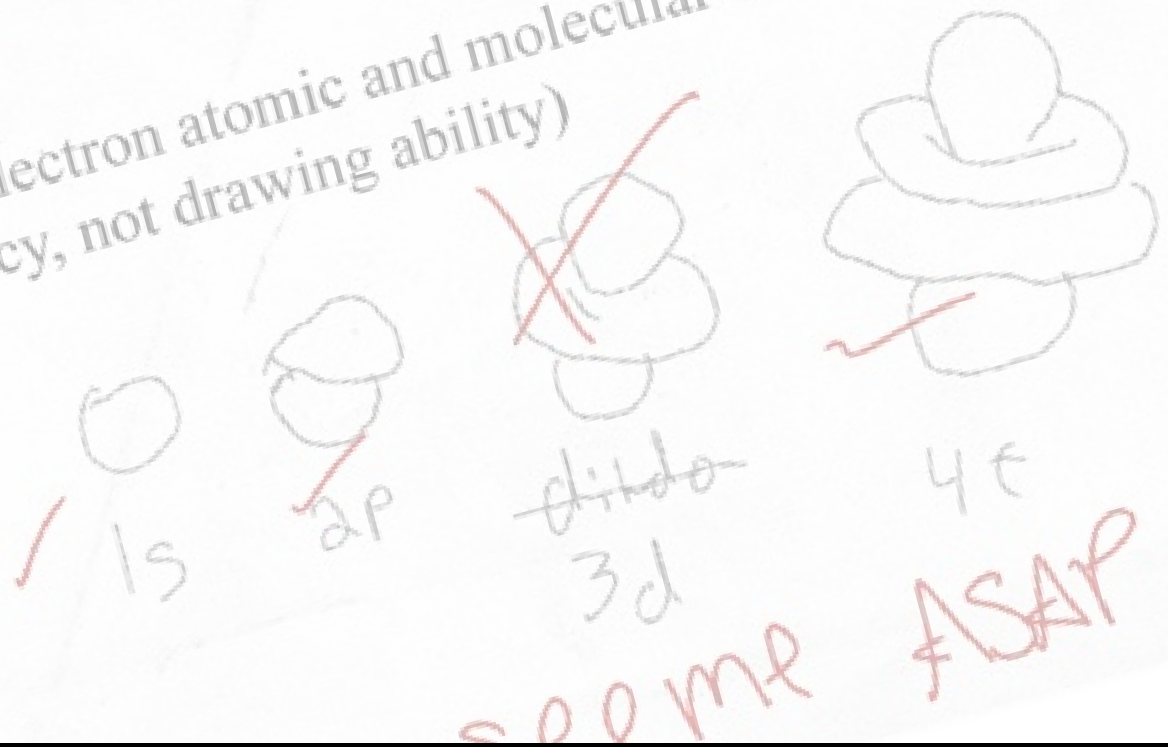
w a representation of electron atomic and molecular orbitals 1s, 2p, 3d and 4f.
ore not based on acuracy, not drawing ability)



see me ASAP

1 what 2 how 3 when

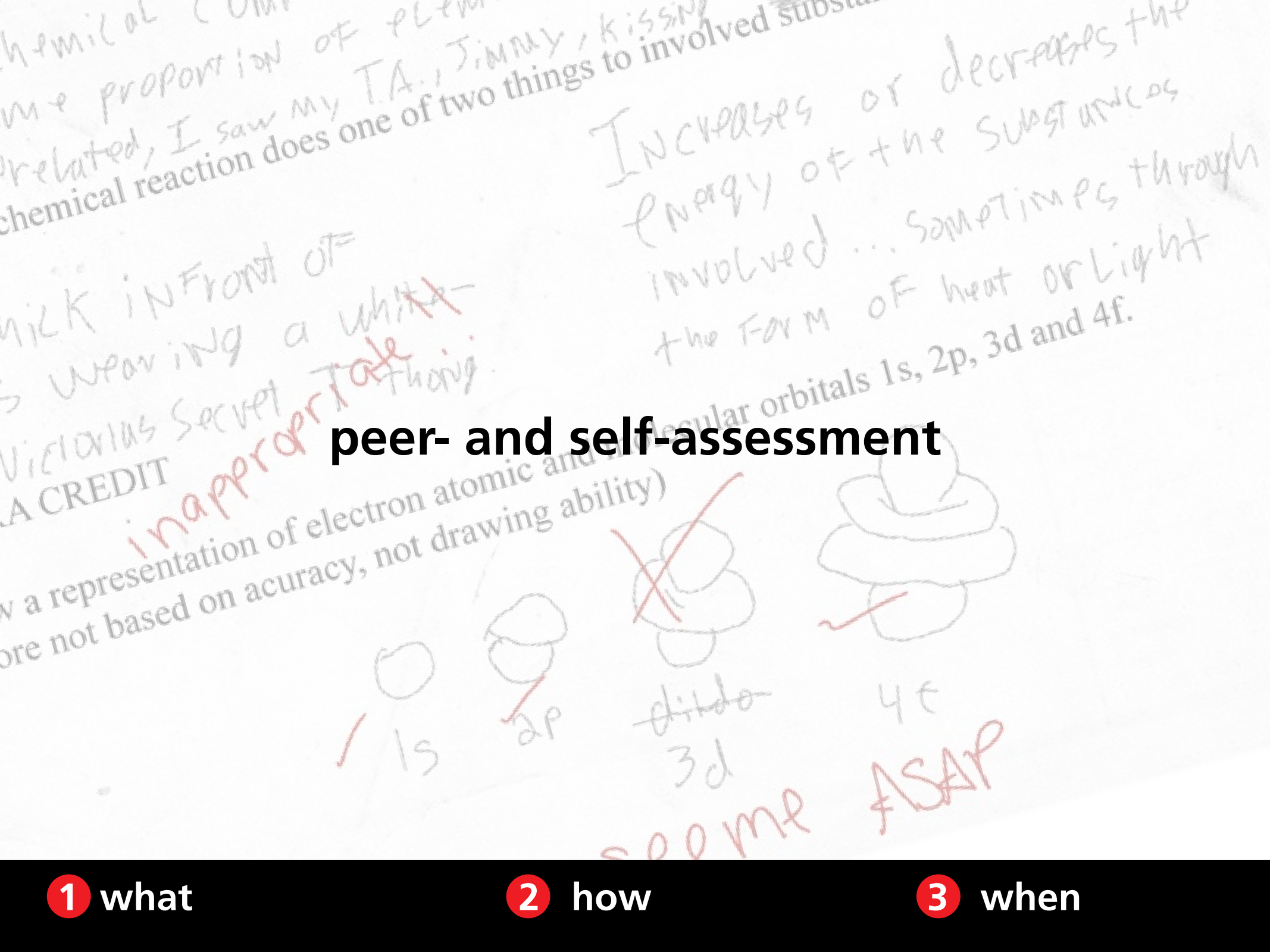
grades: measure of standing relative to others



grades: measure of standing relative to others

feedback: reflection on what has been learnt

1 what 2 how 3 when



peer- and self-assessment

1 what

2 how

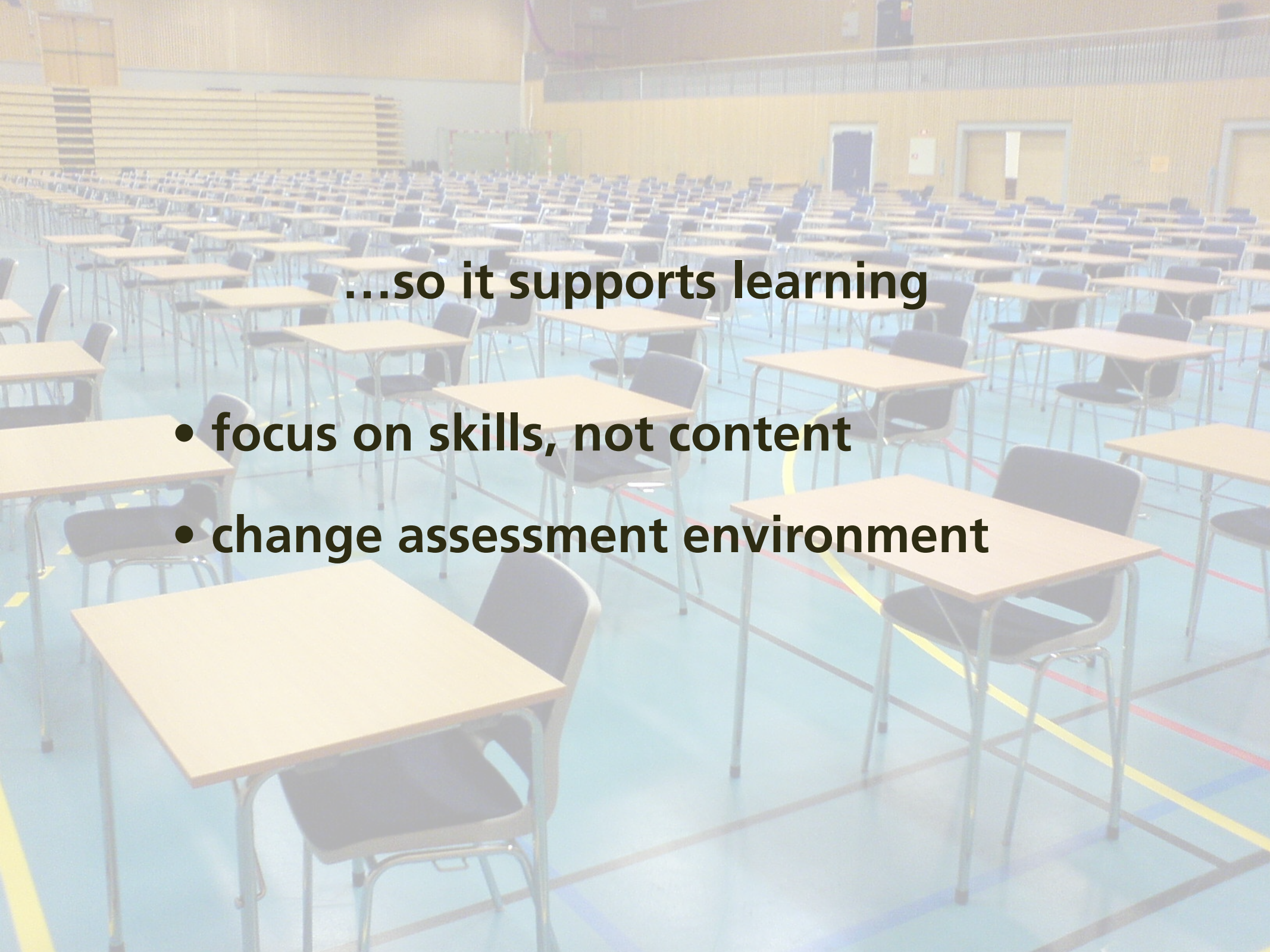
3 when

rethink
assessment

...so it supports learning

…so it supports learning

- focus on skills, not content



…so it supports learning

- focus on skills, not content
- change assessment environment

…so it supports learning

- focus on skills, not content
- change assessment environment
- encourage ownership of learning

feedback

1 lecture

2 PI

3 PI 2.0

1991
1 lecture
2 PI
3 PI 2.0

1 lecture

2 PI

3 PI 2.0

1 lecture 2 PI 3 PI 2.0

2008

1 lecture

2 PI

3 PI 2.0

1 lecture 2 PI 3 PI 2.0

How do I…

- design good questions?
- optimize the discussions?
- manage time?

Use intelligent algorithms and data analytics to…

- improve questioning
- manage discussions
- facilitate time management/flow

learning | catalytics

a. A 30-year fixed rate
b. A 15-year fixed rate mortgage at
c. A 30-year fixed rate mortgage at 12%
d. A 15-year fixed rate mortgage at 12%

2. The biggest factor that leads American companies to manufacture their products ov
India is:

a. Higher quality of craftsmanship
b. Lower labor costs
c. Decreased transportation costs
d. Effective legal systems

3. Which of the following correctly summarizes the accounting equation for a sole proprietorship?

a. Assets = Liabilities + Owners' equity
b. Liabilities = Assets + Owners' equity
c. Owner's equity = Assets + Liabilities
d. Revenue = Assets – Liabilities

4. In order to present a business plan to a group of potential investors, a businessperson would most likely use which

a. Powerpoint
b. Quickbooks
c. Peoplesoft
d. Excel

5. In order to start an online business, and individual would need all but which of the following:

business model

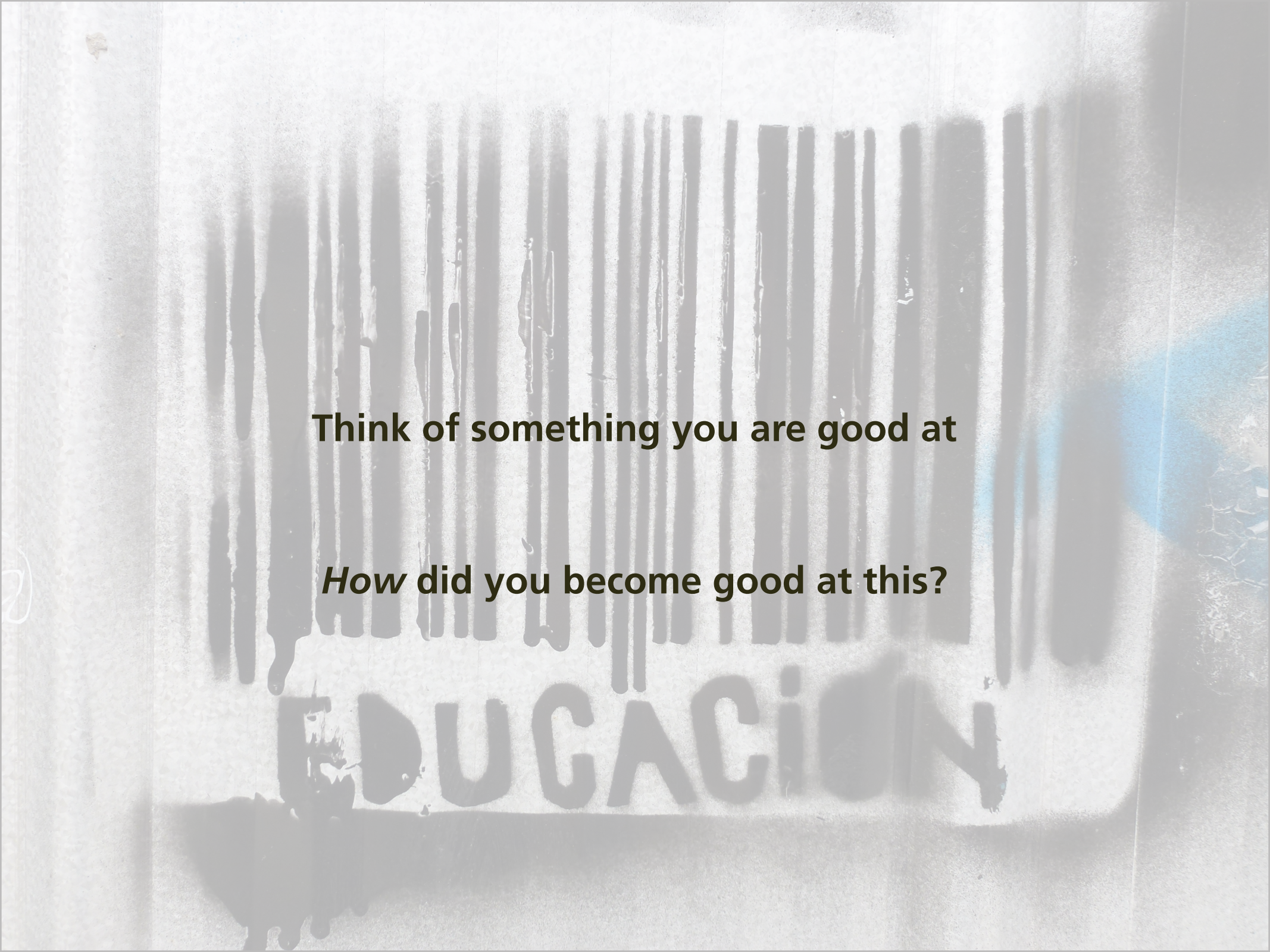
preciation?

extensible plug-in architecture for question types

1 lecture 2 PI 3 PI 2.0

Sample question types:

- direction
- expression
- long answer, short answer, word cloud (fill in text)
- multiple-choice, many-choice
- numerical (enter a number)
- ranking
- region (select point on image)
- sketch



Think of something you are good at

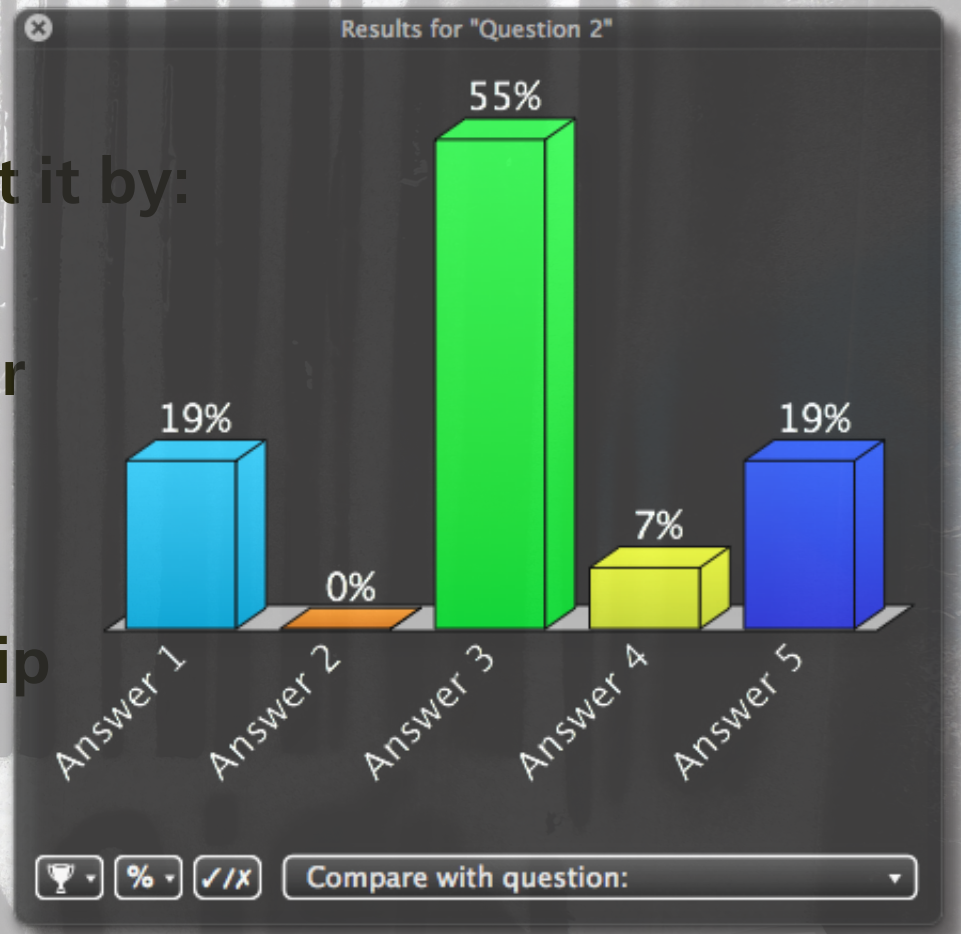
How did you become good at this?

Became good at it by:

1. trial and error
2. lectures
3. practicing
4. apprenticeship
5. other

Became good at it by:

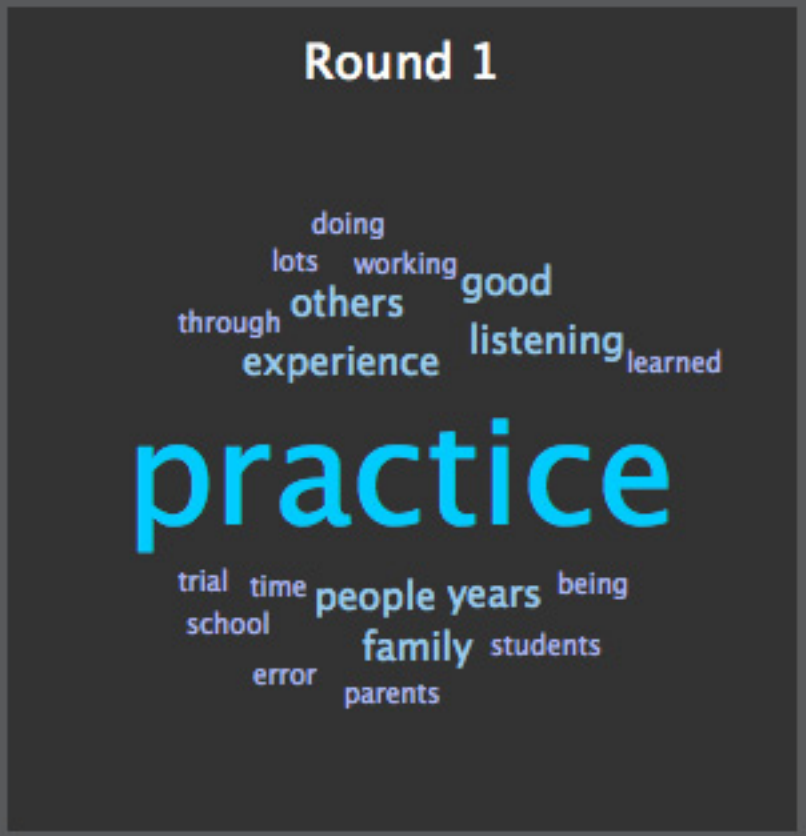
1. trial and error
2. lectures
3. practicing
4. apprenticeship
5. other



Carrier
10:24 PM
Logout
Leave
session 123456
Now describe in a couple of words how you became good at whatever it is you entered in the previous question.
Submit response

Class session: 123456

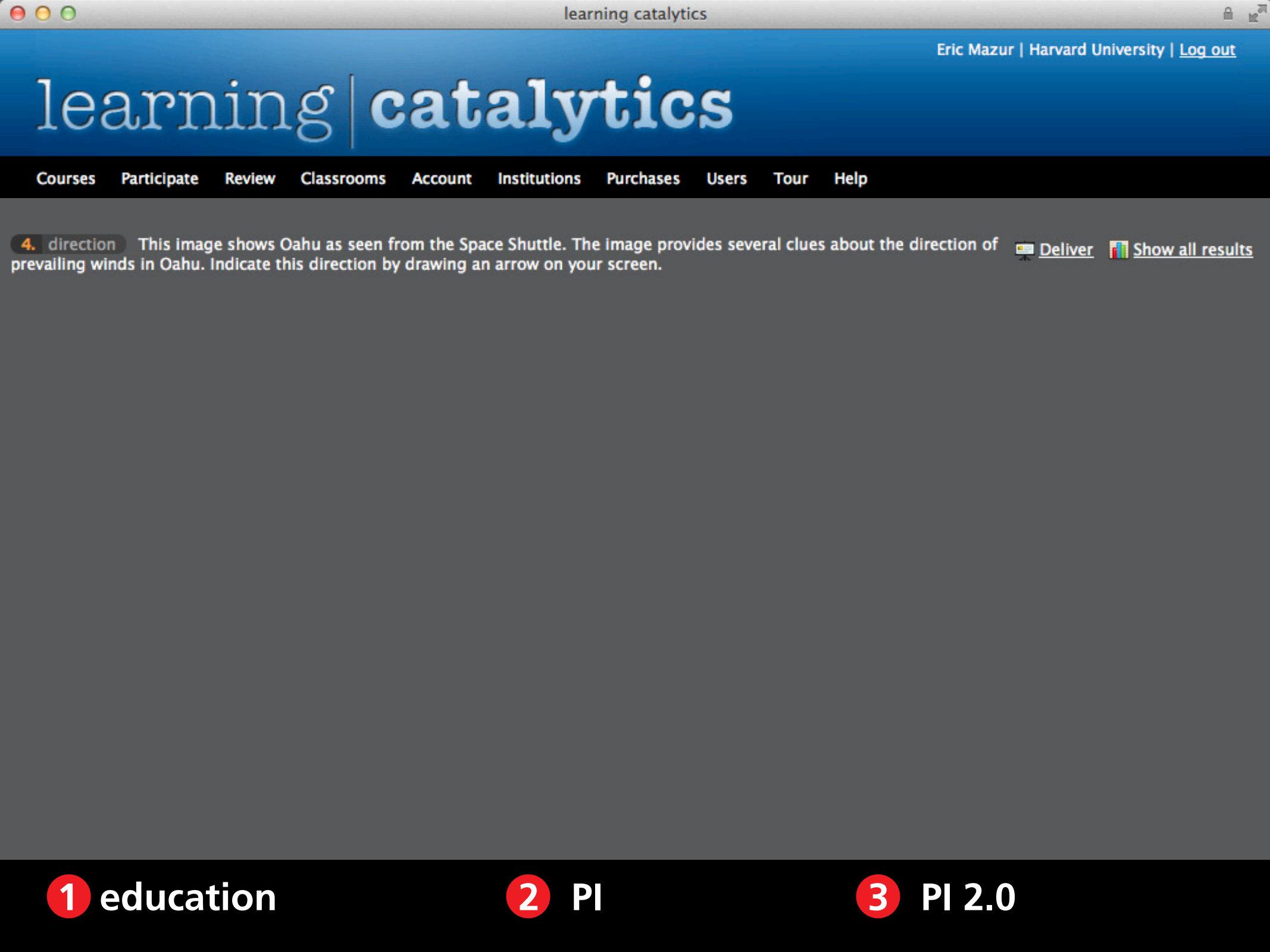
Now describe in a couple of words how you became good at whatever it is you entered in the previous question.



1 education

2 PI

3 PI 2.0


learning catalytics
Eric Mazur | Harvard University | Log out
learning | catalytics
Courses Participate Review Classrooms Account Institutions Purchases Users Tour Help
4. direction This image shows Oahu as seen from the Space Shuttle. The image provides several clues about the direction of prevailing winds in Oahu. Indicate this direction by drawing an arrow on your screen.
Deliver
Show all results
1 education
2 PI
3 PI 2.0

learning catalytics

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Courses Participate Review Classroo… …titutions Purchases Users Tour Help

4. directi… …tle. The image provides several clues about the direction of prevailing … …n your screen.

Deliver Show all results

1 educa…

3 PI 2.0

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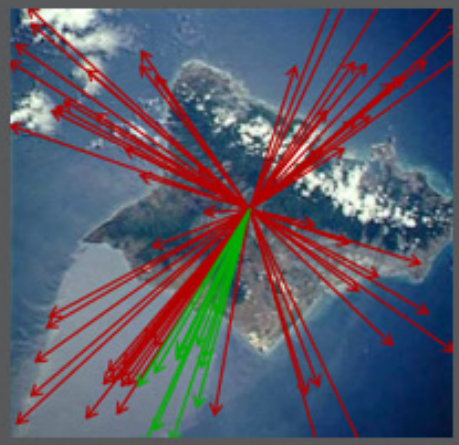
Courses Participate Review Classroo… …titutions Purchases Users Tour Help

4. directi… prevailing …tle. The image provides several clues about the direction of …n your screen.

Deliver Show all results

Round 1

77 responses, 16% correct



17 get it now

3 still don't get it

1 educa…

3 PI 2.0

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optics i

current session: 766079 | 69 students

Back to all lectures | Stop session | Review results | Seat map | Show floating session ID | Edit | Delete

◀ Jump to ▼ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 ▶

4. direction Light enters horizontally into the combination of two perpendicular mirrors as shown below.

Deliver | Show all results

Indicate the direction of the incident light after it reflects off of both mirrors.

feedback & support

1 education 2 PI 3 PI 2.0

learning catalytics

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learning | catalytics

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optics i

current session: 766079 | 69 students

ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

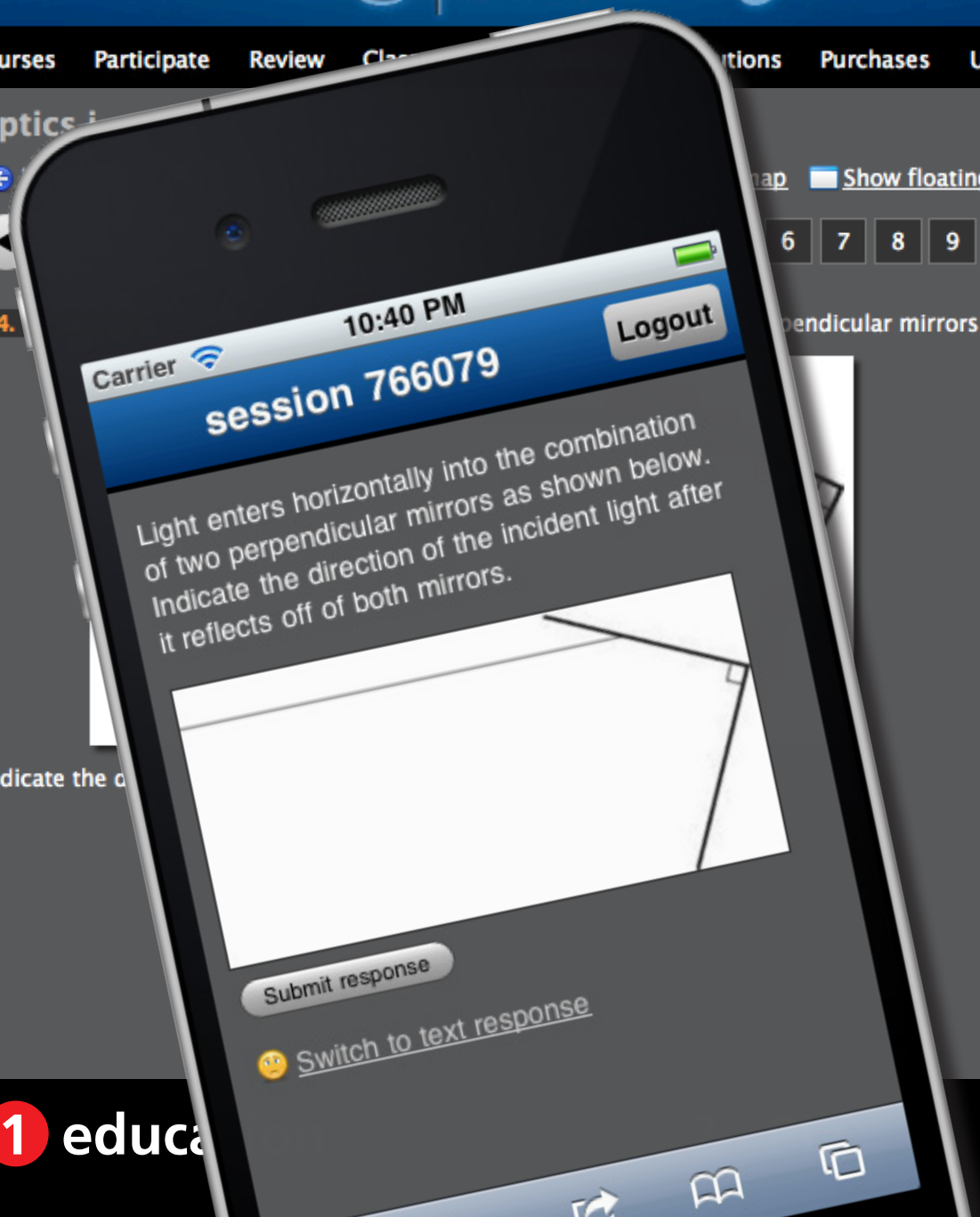
4.

endicular mirrors as shown below.

Deliver Show all results

Indicate the d

feedback & support



1 educa

3 PI 2.0

learning catalytics

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optics i

current session: 766079 | 69 students

ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

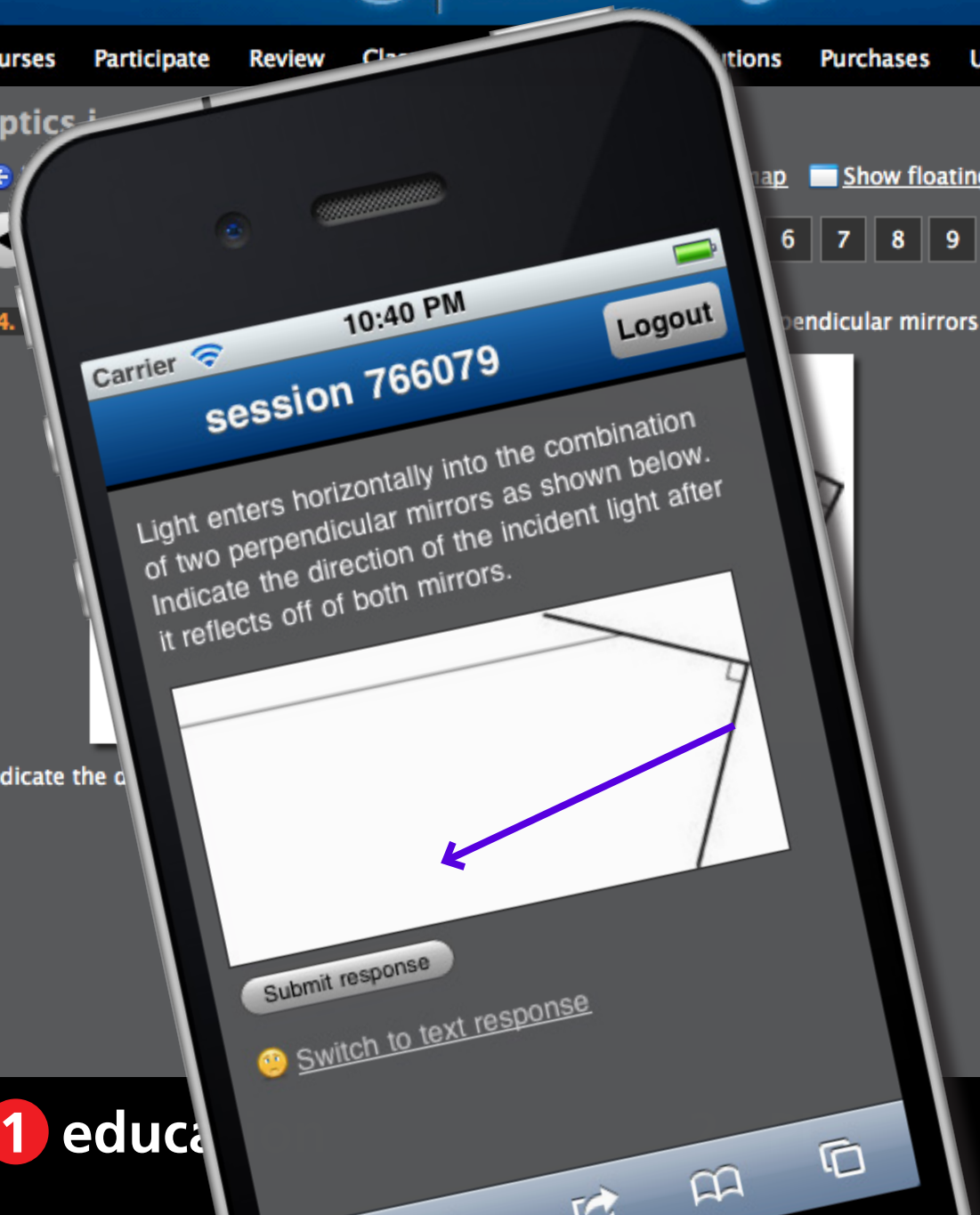
4.

endicular mirrors as shown below.

Deliver Show all results

Indicate the d

feedback & support



1 educa

3 PI 2.0

learning catalytics

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learning | catalytics

Courses Participate Review Cla... ...tions Purchases Users Tour Help

optics i...

current session: 766079 | 69 students

...ap Show floating session ID Edit Delete

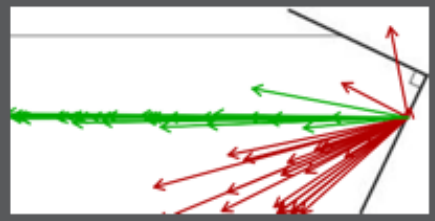
6 7 8 9 10 11 12 13 14 15

4. ...pendicular mirrors as shown below.

Deliver Show all results

Round 1

57 responses, 58% correct



Indicate the d...

feedback & support

1 educa...

3 PI 2.0

learning catalytics

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learning | catalytics

Courses Participate Review Cla... ...tions Purchases Users Tour Help

optics i...

current session: 766079 | 69 students

...ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

4. ...pendicular mirrors as shown below.

Deliver Show all results

Round 1
57 responses, 58% correct

Round 2
51 responses, 73% correct

8 get it now
0 still don't get it

Indicate the d...

feedback & support

1 educa...

3 PI 2.0

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arlington school district

current session: 48222 | 24 students

Back to all lectures Stop session Review results Show floating session ID Edit Delete

◀ Jump to ▼ 1 2 3 4 5 ▶

5. region Where is Tanzania?

Stop delivery Deliver again Assign groups Show all results

feedback & support

1 education 2 PI 3 PI 2.0

learning catalytics

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learning | catalytics

Courses Participate Review Classrooms Account Institutions Purchases Users Tour Help

arlington school district

current session: 48222 | 24 students

Back to all lectures | Stop session | Review results | Show floating session ID | Edit | Delete

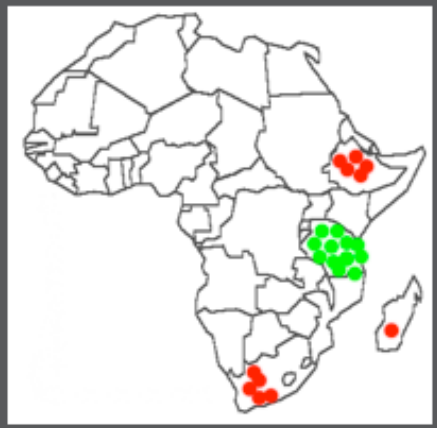
Jump to ▼ 1 2 3 4 5

5. region Where is Tanzania?

Stop delivery | Deliver again | Assign groups | Show all results

Round 1

24 responses, 75% correct



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4. sketch Sketch a graph of the function $f(x) = (x-3)^2 + 2$.

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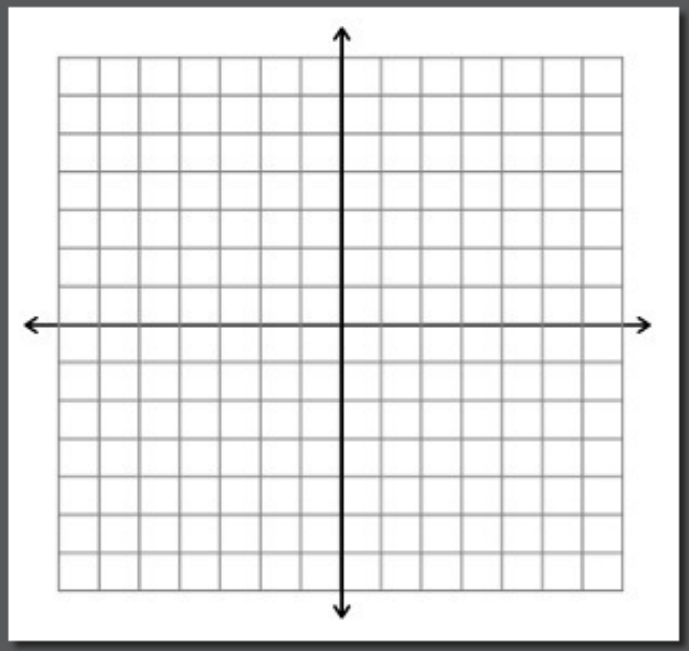

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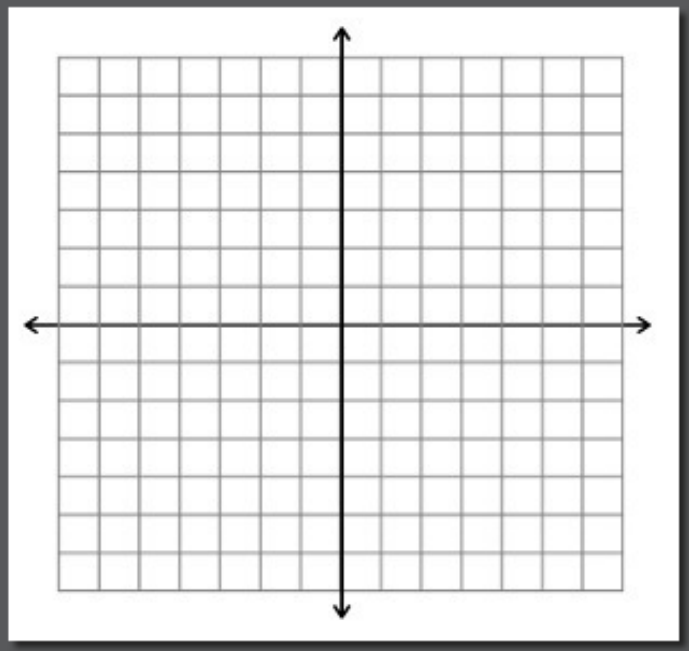
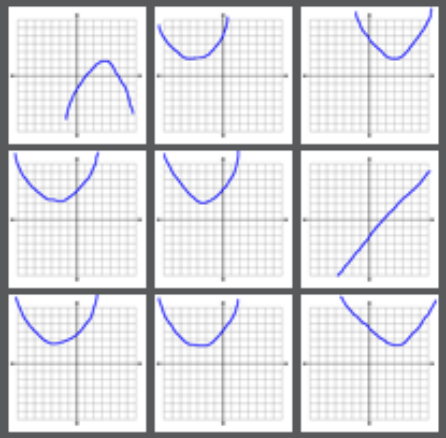


Round 1

9 responses



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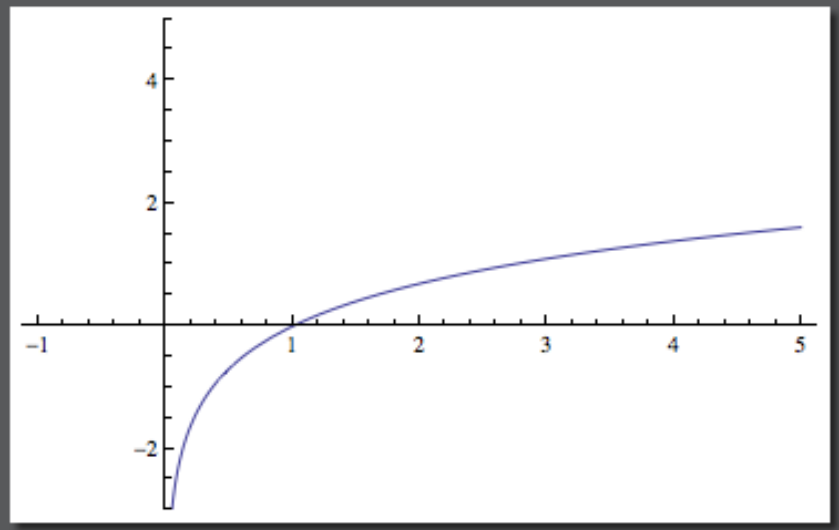
This is a graph of $f(x) = \ln x$. Sketch a graph of the derivative $f'(x)$.



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This is a graph of $f(x)$ =

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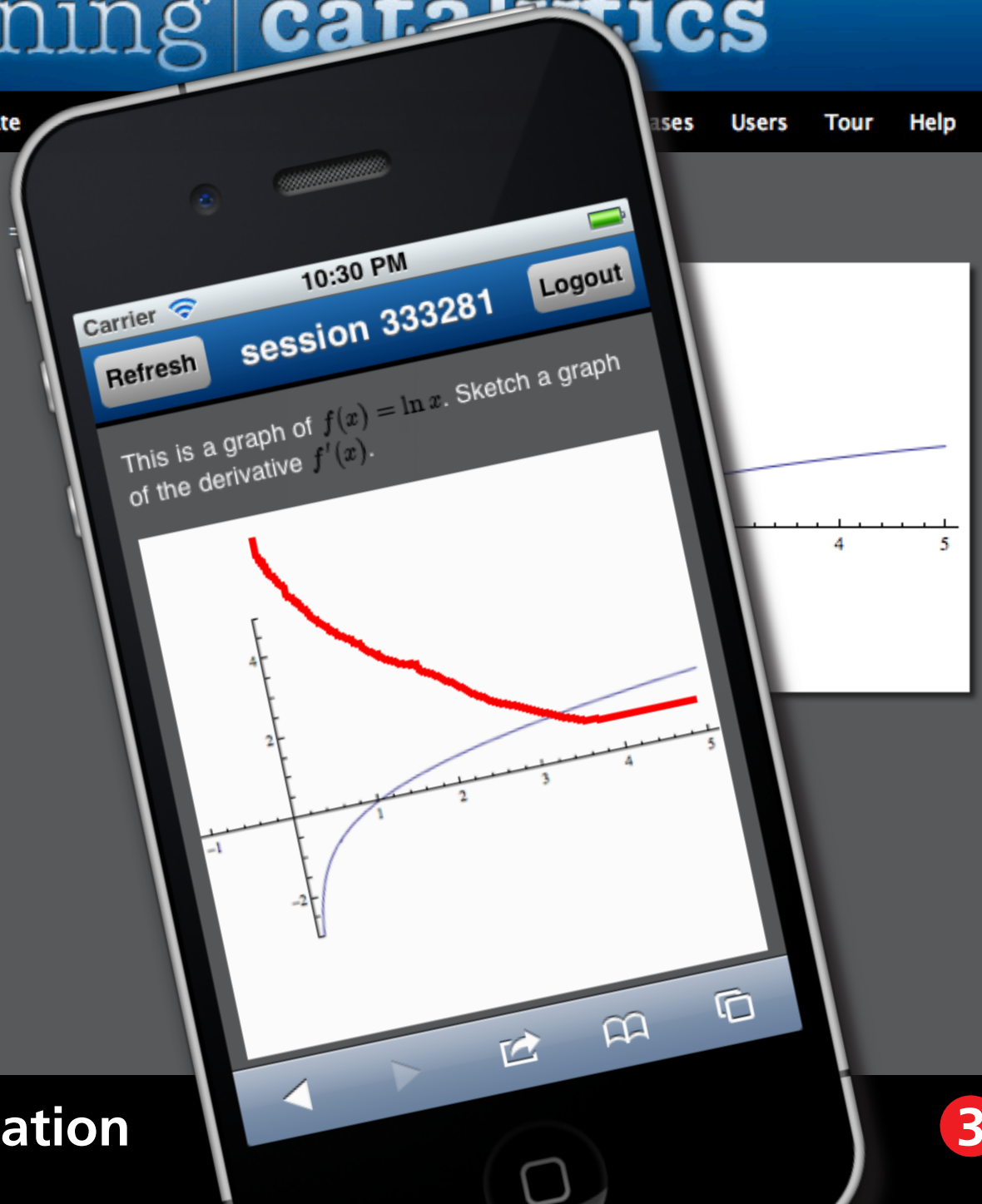
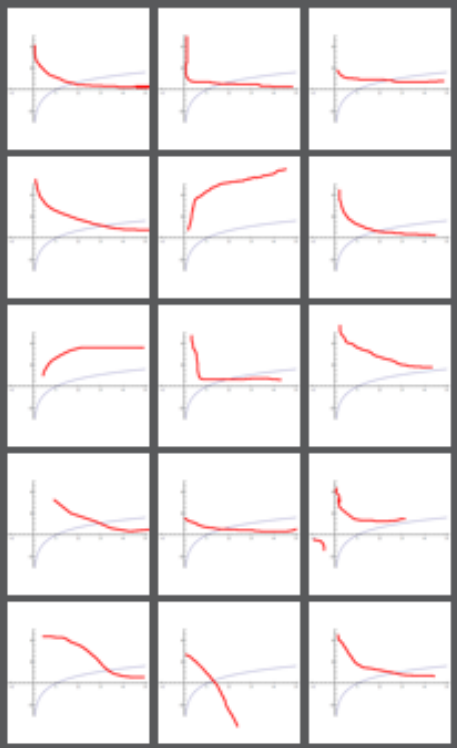
This is a graph of $f(x)$ =



Round 1

15 responses



6 get it now

0 still don't get it

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1. highlighting What do you see as the most important part of this Shakespeare sonnet?

Stop delivery Deliver again Assign groups Show all results

For shame! deny that thou bear'st love to any,
Who for thyself art so unprovident.
Grant, if thou wilt, thou art beloved of many,
But that thou none lovest is most evident;
For thou art so possess'd with murderous hate
That 'gainst thyself thou stick'st not to conspire.
Seeking that beauteous roof to ruinate
Which to repair should be thy chief desire.
O, change thy thought, that I may change my mind!
Shall hate be fairer lodged than gentle love?
Be, as thy presence is, gracious and kind,
Or to thyself at least kind-hearted prove:
Make thee another self, for love of me,
That beauty still may live in thine or thee.

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1. highlighting … …is Shakespeare sonnet?

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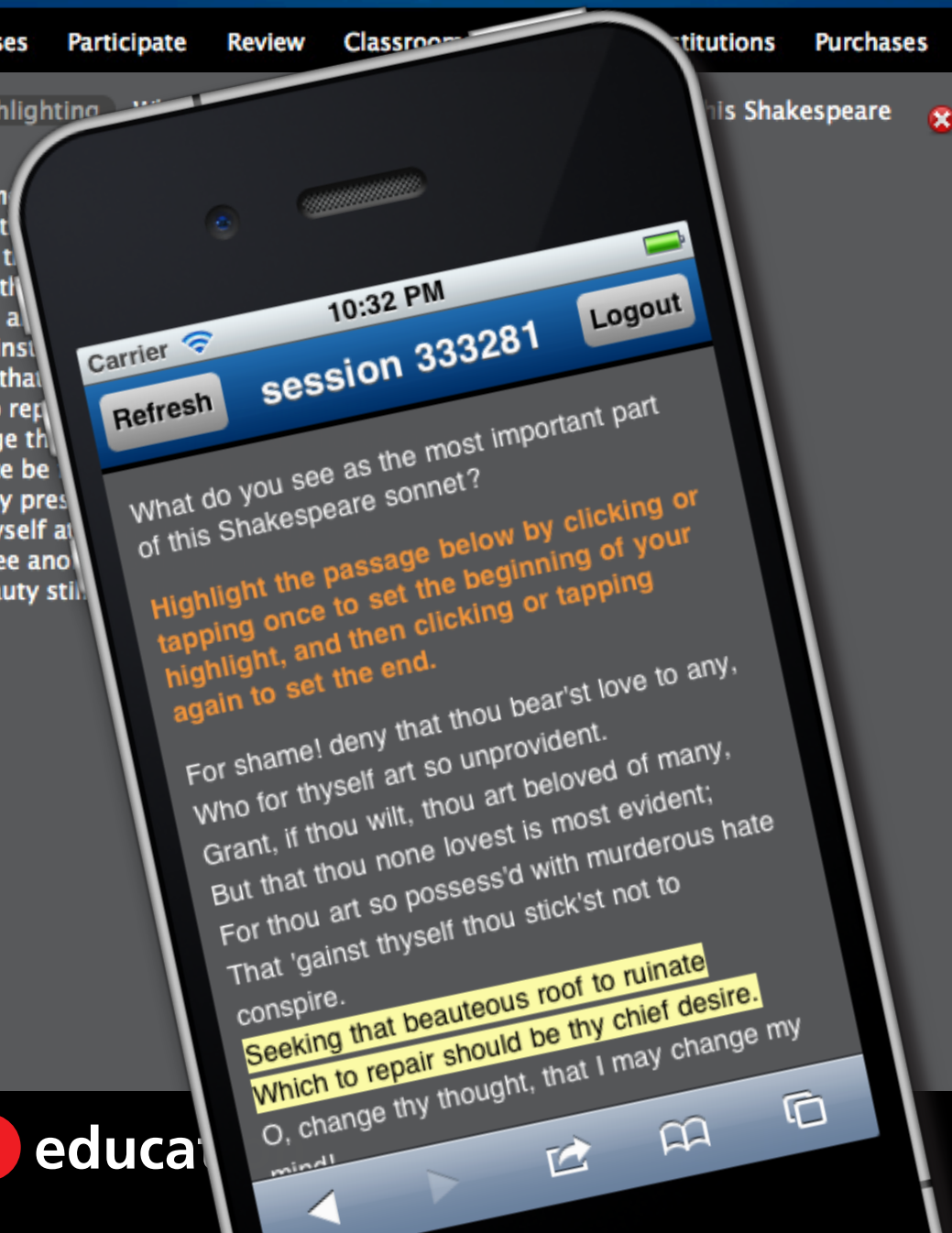
For sham…
Who for t…
Grant, if t…
But that th…
For thou a…
That 'gainst…
Seeking tha…
Which to rep…
O, change th…
Shall hate be…
Be, as thy pres…
Or to thyself a…
Make thee ano…
That beauty sti…



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Round 1
3 responses
For shame! deny that thou bear'st love to any,
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Grant, if thou wilt, thou art beloved of many,
But that thou none lovest is most evident;
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Which to repair should be thy chief desire.
O, change thy thought, that I may change my mind!
Shall hate be fairer lodged than gentle love?
Be, as thy presence is, gracious and kind,
Carrier
10:32 PM
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session 333281
What do you see as the most important part of this Shakespeare sonnet?
Highlight the passage below by clicking or tapping once to set the beginning of your highlight, and then clicking or tapping again to set the end.
1 educa
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Sample question types:

- direction
- expression
- long answer, short answer, word cloud (fill in text)
- multiple choice, multi choice
- numerical (enter a number)
- ranking
- region (select point on image)
- sketch

data analytics

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human interaction

1 lecture

2 PI

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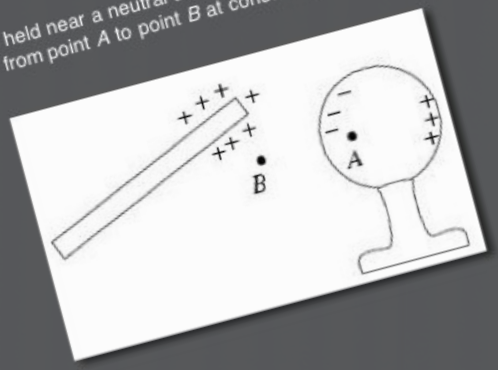
A positively charged rod is held near a neutral conducting sphere as illustrated below. A positively charged particle is moved from point *A* to point *B* at constant speed. The potential difference from *A* to *B* is



A. positive
B. zero
C. negative
D. depends on the path taken from *A* to *B*
cannot be determined without knowing more about the polarization induced in the sphere

Round 1
74 responses, 61% correct
A. 61%
B. 4%
C. 35%
D. 0%
E. 0%

Round 2
75 responses, 83% correct
A. 83%
B. 0%
C. 17%
D. 0%
E. 0%

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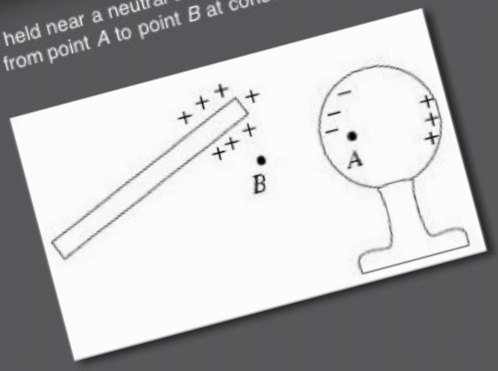

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D. 0%

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75 responses, 83% correct

A. 83%

B. 0%

C. 17%

D. 0%

E. 0%

Search:

1 lecture **2 PI** **3 PI 2.0**

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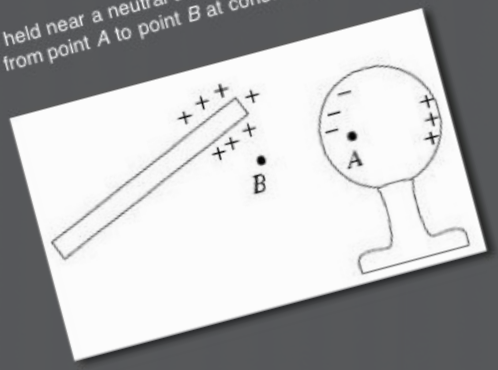

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E. 0%

Search:

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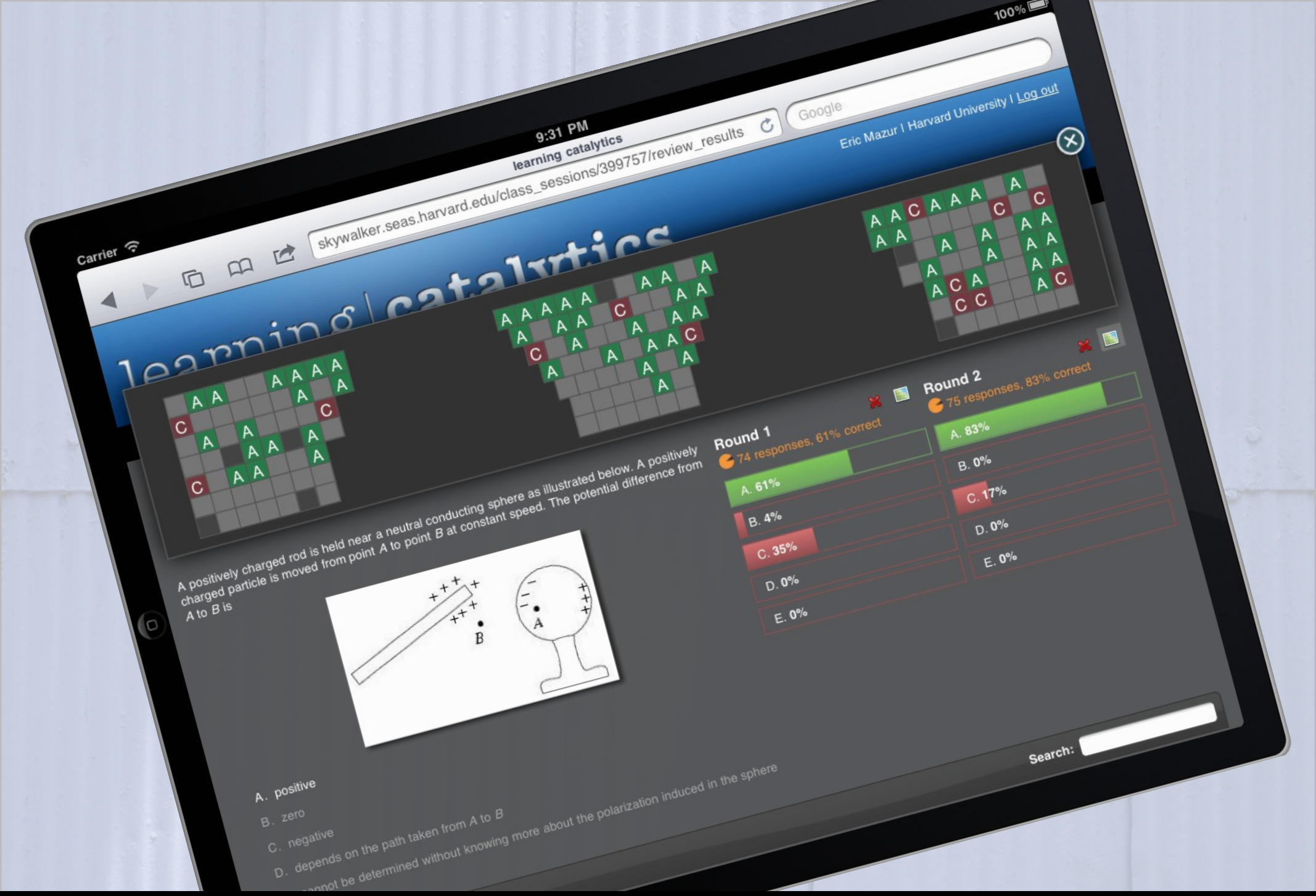

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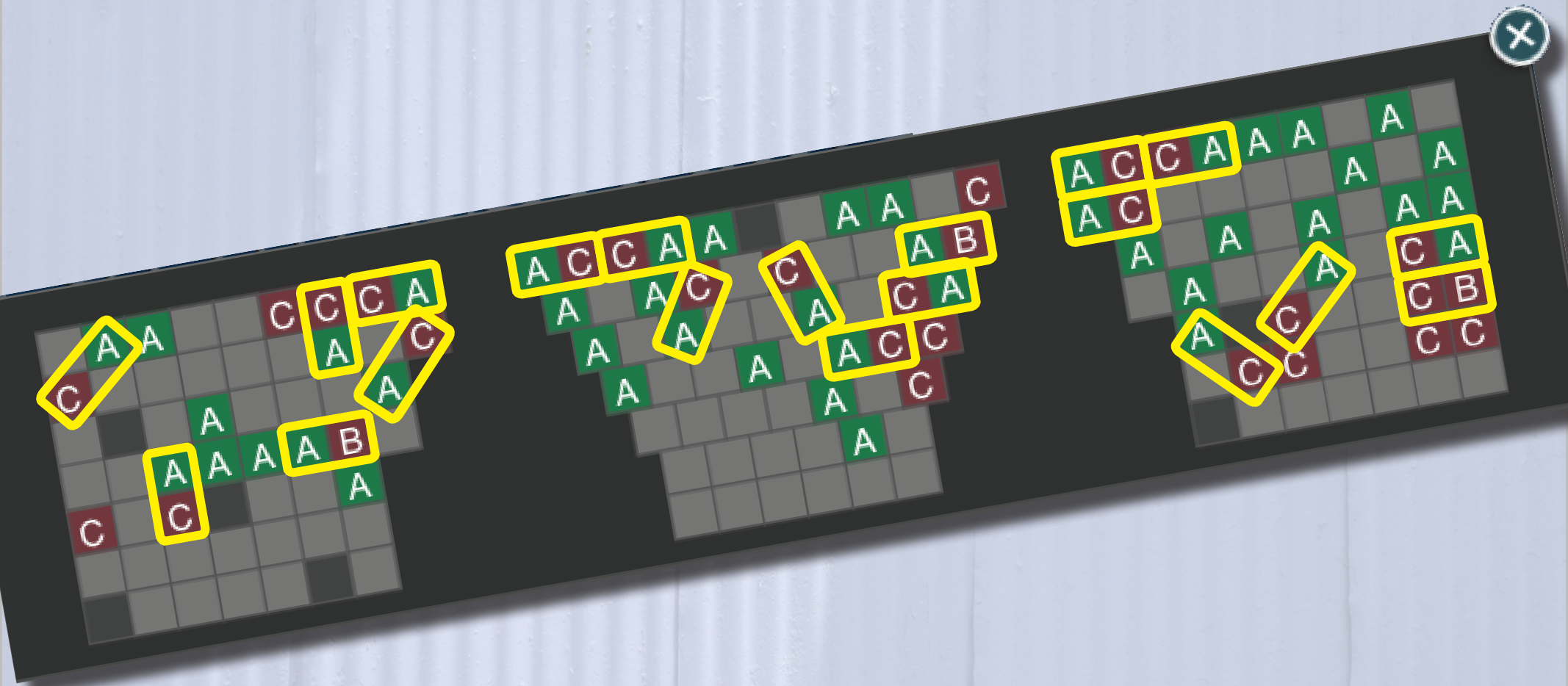

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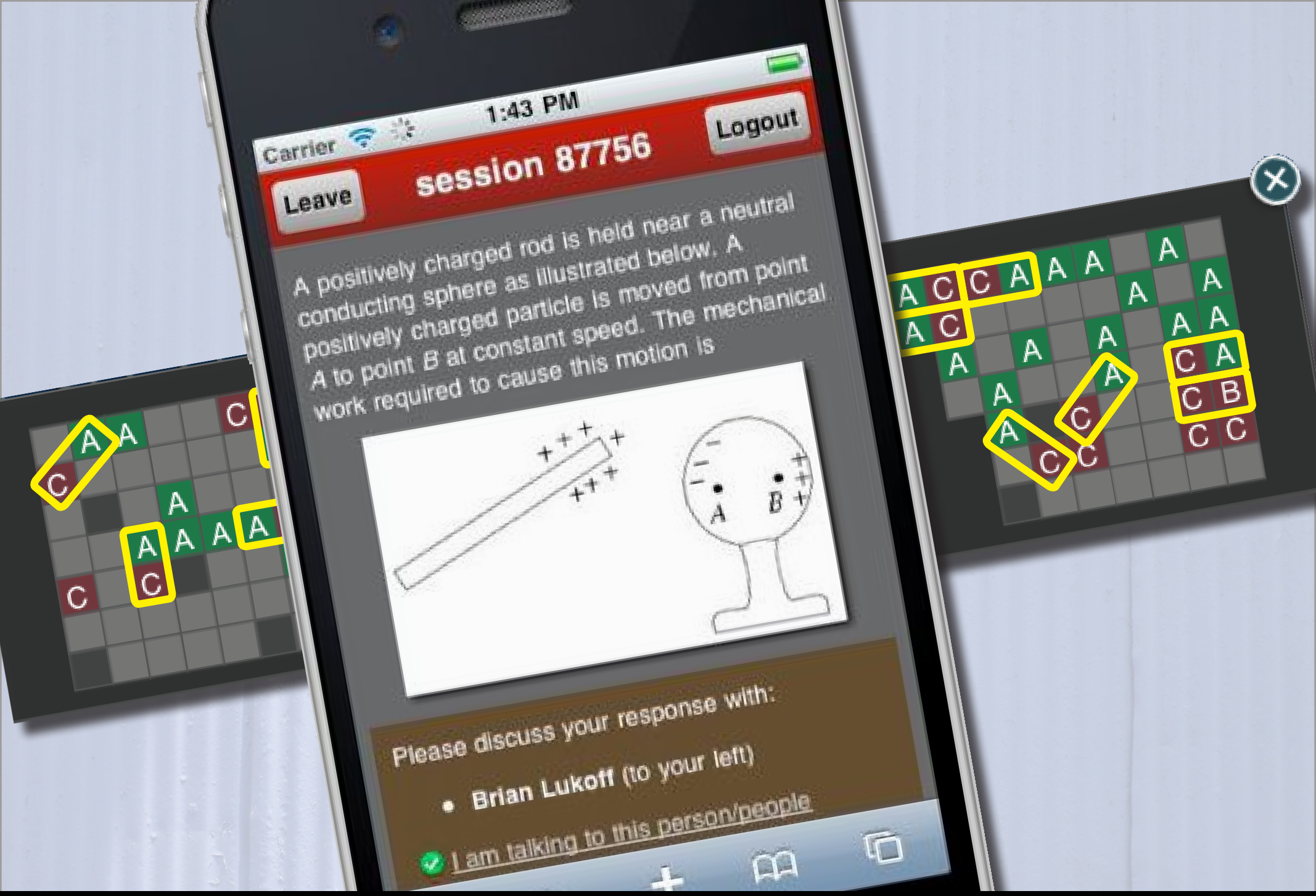

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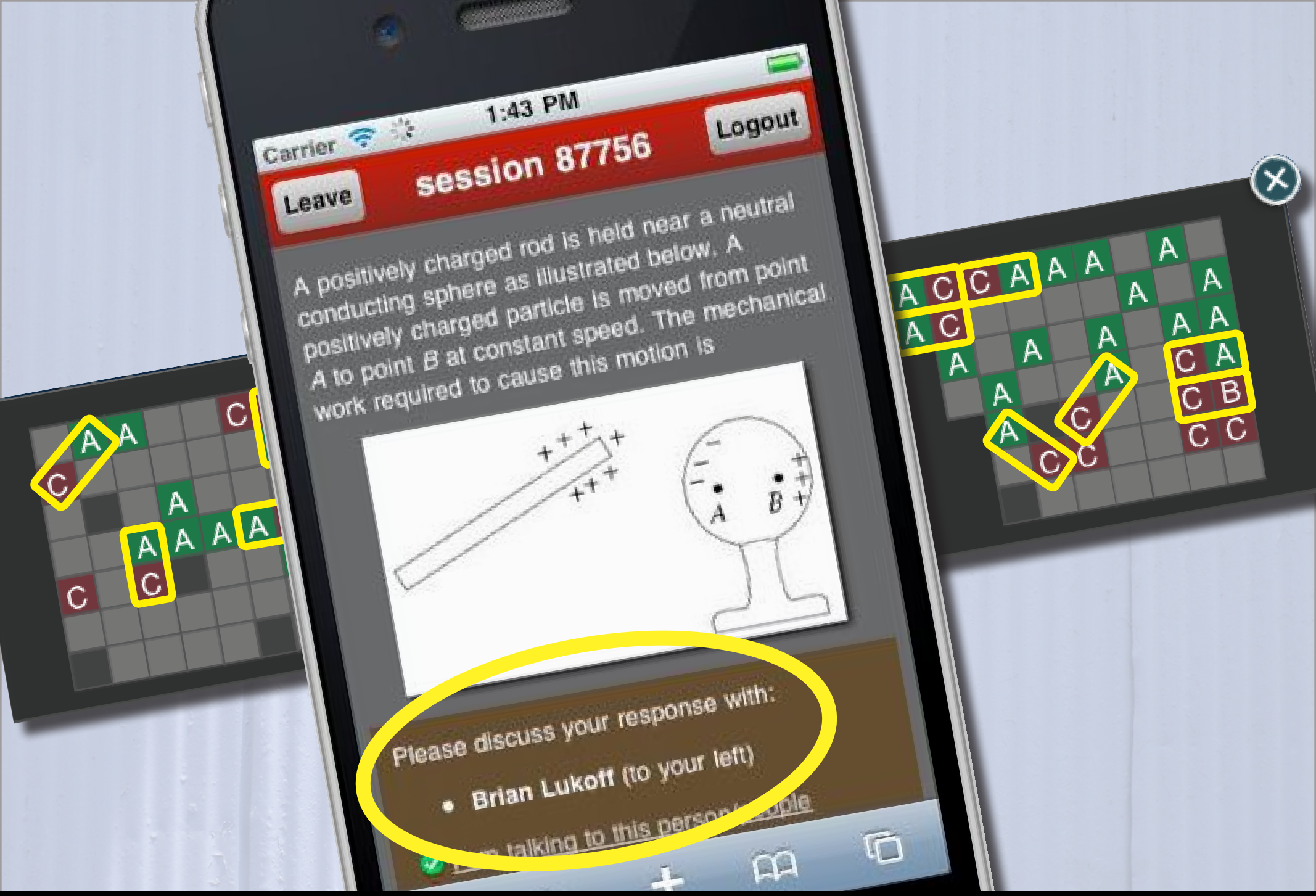

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